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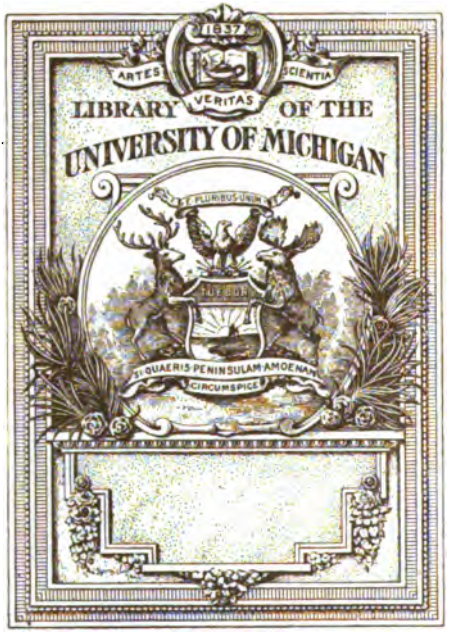
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Number

Ohio State University Bulletin

Catalogue

May 14, 1908

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For errata note, see page 343.

Vol. XII Number 13

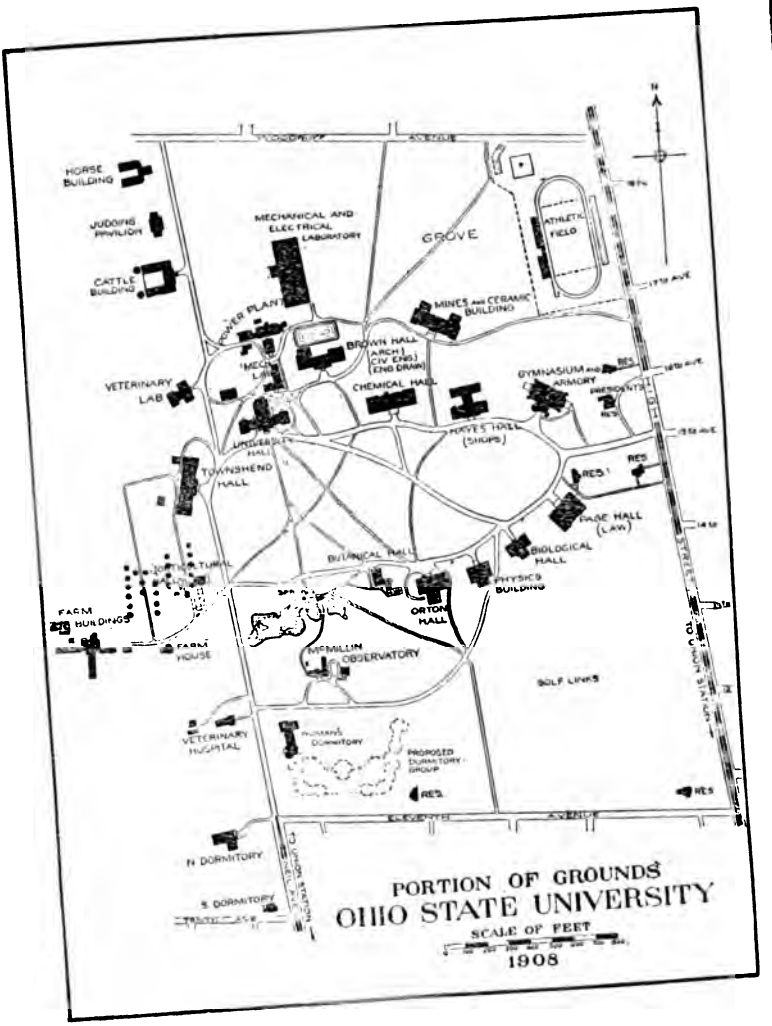
Ohio State University Bulletin

Catalogue—1907-1908

Announcements—1908-1909

May, 1908

COLUMBUS, OHIO
PUBLISHED BY THE OHIO STATE UNIVERSITY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PAGE HALL (LAW)
BIOLOGICAL HALL
BOTANICAL HALL
PHYSICS BUILDING
ORTON HALL
FARM BUILDINGS
FARM HOUSE
McMILLIN OBSERVATORY
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PROPOSED DORMITORY GROUP
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NORTH
PORTION OF GROUNDS
OHIO STATE UNIVERSITY
SCALE OF FEET
1908

BOARD OF TRUSTEES

1907–1908

		TERM EXPIRES
JOHN T. MACK	*Sandusky*	May 13, 1908
FRANK A. DERTHICK	*Mantua*	" 1909
GUY W. MALLON	*Cincinnati*	" 1910
O. E. BRADFUTE	*Cedarville*	" 1911
FRANK E. POMERENE	*Coshocton*	" 1912
O. T. CORSON	*Columbus*	" 1913
WALTER J. SEARS	*Chillicothe*	" 1914

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O. T. CORSON

FACULTY AND COURSES OF STUDY

O. T. CORSON — GUY W. MALLON
J. T. MACK

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UNIVERSITY CALENDAR

1908

Entrance examinations (8 A. M.) Tuesday to Saturday, June 16 to 20.

Summer term, June 22 to August 14.

Summer session at the Lake Laboratory, Sandusky, June 22 to August 14.

Summer courses in Surveying, June 19 to July 18.

Summer courses in Shop-work, June 22 to August 14.

Entrance examinations (8 A. M.) Tuesday to Saturday, September 15 to 19.

First term begins—Registration Day—Tuesday, September 22.

First semester begins (Law College)—Registration Day, Tuesday, September 22.

Lectures and Class-work begin, Wednesday, September 23.

Meeting of Trustees, Wednesday, September 23.

President's Annual Address, (11 A. M.) Friday, September 25.

Latest date of admission to candidacy for a degree at the Commencement of June, 1909, Thursday, October 1.

Thanksgiving recess, November 26, 27, and 28.

Latest date for filing thesis subject, Tuesday, December 15

First term ends, Wednesday, December 23.

CHRISTMAS VACATION

1909

Second term begins—Registration Day—Tuesday, January 5.

First semester ends (Law College), Friday, February 12.

Second semester begins (Law College)—Registration Day—Monday, February 15.

Washington's Birthday, Monday, February 22.

Second term ends, Friday, April 2.

SPRING RECESS.

Third term begins—Registration Day—Wednesday, April 7.

Meeting of Trustees, Wednesday, April 7.

Field Day—Athletic Association—Saturday, May 8.

Competitive Drill—Cadet Regiment—Saturday, May 22.

Senior vacation begins, Saturday, May 29.

Latest date for presenting thesis, Saturday, June 12.

Final examinations, Friday to Thursday, June 11 to 17.

Entrance examinations (8 A. M.), Tuesday to Saturday, June 15 to 19.

Latest date for filing bound copy of thesis, Friday, June 18.

Baccalaureate sermon, Sunday, June 20.

Class Day, Monday, June 21.

Meeting of Trustees, Tuesday, June 22.

Alumni Day, Tuesday, June 22.

Commencement, Wednesday, June 23.

JULY, 1908.

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SEPTEMBER, 1908.

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OCTOBER, 1908.

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FEBRUARY, 1909.

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MARCH, 1909.

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APRIL, 1909.

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JUNE, 1909

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JULY, 1909.

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AUGUST, 1909.

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SEPTEMBER, 1909.

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OCTOBER, 1909.

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NOVEMBER, 1909.

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DECEMBER, 1909.

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Office, Room 112, University Hall; office hours, 11, daily; 3, Tu., Th.

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Office, Chemical Hall.

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Office, 1b Veterinary Laboratory; office hours, 1 P. M., daily.

SEPTIMUS SISSON, S. B., V. S. ..... *Secretary*
Office, Room 6b Veterinary Laboratory.

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* Absent on leave, 1907–1908.

† Died, December 9, 1907.

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1907–1908

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President

A. B., Muskingum College, 1878; A. M., ibid., 1881; D. D., ibid., 1891; LL. D., Western University of Pennsylvania, 1897. Licensed by the Presbytery of Zanesville, Dresden, Ohio, April, 1881; Ordained by Presbytery of Fort Dodge, Iowa, July, 1882; Pastor Odebolt, Iowa, 1882–1885; Pastor Longmont, Colorado, 1885–1891; President Longmont College, 1885–1889; President Miami University, 1891-1899; present position since 1899.

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Ph. D., Ohio State University, 1878; D. Sc., Rose Polytechnic Institute; LL. D., University of Michigan, 1887; Professor of Physics and Mechanics, Ohio State University, 1873–1878; Professor of Physics, Imperial University of Japan, 1878–1881; Professor of Physics, Ohio State University, 1881–1884; Professor United States Signal Corps, 1884–1886; President Rose Polytechnic Institute, 1886–1889; Superintendent United States Coast and Geodetic Survey, 1889–1894; President Worcester Polytechnic Institute, 1894–1901.

SIDNEY AUGUSTUS NORTON.....363 East Town Street

Emeritus Professor of Chemistry

A. B., Union, 1856; A. M., Union, 1859; M. D., Miami Medical College, 1867; Ph. D., Kenyon, 1878; LL. D., Wooster, 1881; LL. D., Union, 1889; Student at Bonn, Leipsic, Heidelberg; Teacher, Poughkeepsie Collegiate Academy, 1856; Tutor, Union, 1857; Principal, Hamilton (Ohio) High School, 1858; Instructor of Natural Science, Cleveland High Schools, 1859–1866; Teacher of Natural Science, Mt. Auburn, 1866–1872; Professor of Chemistry, Miami, 1867–1872; Acting Professor of Physics, Union, 1872–1873; Professor of Chemistry, Ohio State University, 1873–1895; Lecturer in Chemistry, 1895–1899; present position since 1899.

ROBERT WHITE MCFARLAND.....Oxford, Ohio

Emeritus Professor of Civil Engineering

A. B., Ohio Wesleyan University, 1847; A. M., ibid., 1850; LL. D., ibid., 1881; Teacher in Academies, 1847–1851; Chillicothe Public Schools, 1852–1853; Professor of Mathematics and Astronomy, Madison College, 1853–1856; Professor, same chair, Miami University, 1856–1873; Captain 86th O. V. I., 1862; Lieutenant-

Colonel of the same, 1863–1864; Professor of Mathematics, Astronomy and Civil Engineering, Ohio State University, 1873–1885; State Inspector of Railroads, 1881–1885 President of Miami University, 1885–1888; Civil and Mining Engineer, 1889–1899.

STILLMAN W. ROBINSON.....1353 Highland Street
Emeritus Professor of Mechanical Engineering

C. E., University of Michigan, 1863; D. S., Ohio State University, 1896; Assistant Engineer United States Lake Survey, 1863–1866; Instructor in Engineering, University of Michigan, 1866–1867; Assistant Professor Mining Engineering and Geodesy, ibid., 1867–1870; Professor of Mechanical Engineering and Physics, University of Illinois, 1870–1878; Professor of Mechanical Engineering and Physics, Ohio State University, 1878–1881; Professor Mechanical Engineering, ibid., 1881–1895; present title since 1899.

WILLIAM HENRY SCOTT.....Clintonville
Professor of Philosophy

B. A., Ohio University, 1862; M. A., ibid., 1865; LL. D., Ohio University and Ohio Wesleyan, 1884; Superintendent of Public Schools, Athens, Ohio, 1862–1864; Principal of the Preparatory Department of Ohio University, 1864–1865; Pastor of Main Street (now Trinity) M. E. Church, Chillicothe, Ohio, 1865–1867; Pastor of Town Street (now First) M. E. Church, Columbus, Ohio, 1867–1869; Professor of Greek, Ohio University, 1869–1872; President and Professor of Philosophy, ibid., 1872–1883; President and Professor of Philosophy, Ohio State University, 1883–1895; present position since 1895.

NATHANIEL WRIGHT LORD.....333 West Eighth Avenue
Professor of Metallurgy and Mineralogy, Director of the School of Mines

E. M., Columbia, 1876; Assistant Engineer, Cincinnati, 1877; Engineer and Metallurgist Monte Grande Gold Mining Co., Nicaragua, 1878; Assistant School of Mines, Ohio State University, 1877; Chemist, Ohio Geological Survey, 1880–1888; Assistant Professor of Mining and Metallurgy, Ohio State University, 1880–1887; Professor Mining and Metallurgy, ibid., 1887–1891; Chemist State Board of Agriculture, 1881–1899; Chemist State Board of Health, 1896–1898; present position since 1896.

SAMUEL CARROLL DERBY.....93 Fifteenth Avenue
Professor of Latin

A. B., Harvard, 1866; A. M., Harvard, 1869 (in course), 1877 (by examination); Principal of Schools, Ilion, N. Y., 1866–1867; Assistant in Dixwell's Classical School, Boston, 1867–1870; Professor of Latin, Antioch, 1870–1881; President, Antioch, 1877–1881; Student, Latin and History, Harvard, 1876–1877; Student, Latin and History, Johns Hopkins, 1880–1881; Student, Latin, Harvard, 1892–1893; present position since 1881.

WILLIAM RANE LAZENBY.....348 West Eighth Avenue
Professor of Horticulture and Forestry

B. Agr., Cornell, 1874; M. Agr., Iowa Agricultural College, 1887; Instructor Horticulture and Botany, Cornell, 1874–1877; Assistant Professor of Horticulture, Cornell, 1877–1881; Lecturer, New York State Grange, 1874–1881; Director Ohio U. S. Experiment Station, 1882–1887; Professor of Botany and Horticulture, Ohio State University, 1881–1892; Collaborator United States Bureau of Forestry, 1901–1904; present position since 1892.

JOSIAH RENICK SMITH.....950 Madison Avenue
Professor of the Greek Language and Literature

A. B., Amherst, 1871; A. M., ibid., 1883; Principal Mound Street School, Columbus, 1871–1873; Teacher, Columbus High School, 1873–1876; Assistant Professor of Ancient Languages, Ohio State University, 1876–1881; Student at Leipsic, 1881–1883; present position since 1883.

HENRY ADAM WEBER.....1342 Forsythe Avenue
Professor of Agricultural Chemistry

Graduate of Polytechnic School, Kaiserlautern, 1866; Student Chemistry, under Von Liebig and Reischauer, and of Mineralogy under Von Kobel, Munich, 1866–1868; Ph. D., Ohio State University, 1879; Ohio Geological Survey, Chemical Department, 1869–1874; Professor of General Chemistry and Mineralogy, University of Illinois, 1874–1882; Chemist to State Board of Agriculture, Illinois, 1874–1882; Chemist to State Board of Health, Illinois, 1874–1882; State Chemist and Chief Chemist to Ohio State Dairy and Food Commissioner, 1885–1897; present position since 1884.

BENJAMIN FRANKLIN THOMAS.....University Grounds
Professor of Physics, and State Sealer of Weights and Measures

B. Sc., Ripon, 1874; M. Sc., ibid., 1877; Ph. D., Stevens Institute, 1880; Instructor in Mathematics and Physics, Carlton College, Northfield, Minnesota, 1876–1879; Professor of Physics, University of Missouri, 1880–1885; Member of the Board of Examiners at the International Electrical Exhibition at Philadelphia, 1884; Member of the Jury of Awards, Department of Electricity, at the World's Columbian Exposition, Chicago, 1893; present position since 1885.

GEORGE WELLS KNIGHT.....85 Jefferson Avenue
Professor of American History and Political Science and of Law

A. B., University of Michigan, 1878; A. M., ibid., 1883; Ph. D., ibid., 1884; Student, Law, ibid., 1878–1879; Principal of High School, Lansing, Michigan, 1879–1881; Student, History and Political Science, University of Michigan, 1882–1884; Instructor in History, Ann Arbor High School, 1883–1885; Professor of History and English Literature, Ohio State University, 1885–1887; Professor of History and Political Science, ibid., 1887–1898; Student at Universities of Halle, Berlin, and Freiburg, 1889–1890; present position since 1898.

ROSSER DANIEL BOHANNAN.....16th and Indianola Avenues

Professor of Mathematics

B. Sc., C. E., E. M., University of Virginia, 1876; Student of Mathematics and Physics, Cambridge, England, 1880–1882; Gottingen, 1882–1883; Teacher of Mathematics and Latin, Suffolk Collegiate Institute, Virginia, 1876–1877; Teacher of Mathematics and English, New York Latin School, New York City, 1877–1878; Professor of Mathematics and Natural Science, Emory and Henry College, 1878–1880; Acting Professor of Mathematics, University of Virginia, 1883–1884; Assistant in Mathematics and Physics, ibid., 1884–1887; Professor of Mathematics and Astronomy, Ohio State University, 1887–1895; present position since 1895.

ALBERT MARTIN BLEILE.....218 King Avenue

Professor of Anatomy and Physiology

M. D., Starling Medical College, 1876; Student, Vienna, Chemistry and Physiology, 1876–1877; Student, Physiology, Leipsic, 1877–1878; Student, Anatomy and Histology, Paris, 1878–1879; Lecturer on Experimental Physiology, Starling Medical College, 1879; Professor of Physiology, Starling Medical College, 1884; present position since 1891.

*WILLIAM ASHBROOK KELLERMAN.....

Professor of Botany

B. Sc. Cornell, 1874; Ph. D., Zurich, 1881; Professor of Natural Science, Wisconsin State Normal School, 1874–1879; Professor of Botany and Horticulture, Kentucky State College, 1881–1882; Professor of Botany and Zoology, Kansas State Agricultural College, 1883–1887; Professor of Botany, ibid., 1881–1891; Botanist, Kansas State Board of Agriculture, 1883–1891; Ohio Geological Survey (Botany), 1892–1893; Founder and Editor of the Journal of Mycology; present position since 1891.

GEORGE BEECHER KAUFFMAN.....University Grounds

Professor of Pharmacy, and Dean of the College of Pharmacy

B. Sc., Ohio Wesleyan University, 1877; Pharm. D., Scio, 1894; Associate Professor of Pharmacy, Ohio State University, 1887–1894; present position since 1894.

BENJAMIN LESTER BOWEN.....775 East Broad Street

Professor of Romance Languages and Literatures

A. B., University of Rochester, 1881; Ph. D., Johns Hopkins University, 1888; graduate work, University of Rochester, 1881–1882; Professor of Languages, New Windsor College, Maryland, 1882–1883; Graduate Student and Assistant in French, Johns Hopkins University, 1883–1886, and 1887–1888; Student at the Universities of Paris, Bonn, Rome, and Madrid, 1885, and 1886–1887; Professor of French and Latin, Bowdoin College, 1888–1889; Acting Associate Professor of French Language and Literature, Ohio State University, 1889–1890; Associate Professor of Romance Languages and Literatures, ibid., 1890–1894; present position since 1894.

* Died March 8, 1908.

*JOSEPH VILLIERS DENNEY.....

Professor of English and Dean of the College of Arts, Philosophy, and Science

A. B., University of Michigan, 1885; Journalist, 1885–1888; Principal of the Aurora (Illinois) High School, 1888–1890; Instructor in English and Graduate Student, University of Michigan, 1890–1891; Associate Professor of Rhetoric, Ohio State University, 1891–1894; Professor of Rhetoric and English Language, 1894–1904; present position since 1904.

†ALLEN CAMPBELL BARROWS.....

Professor of English

A. B., Western Reserve, 1861; A. M., ibid., 1866; D. D., Iowa College, 1889; Teacher, Latin and Greek, Phillips Academy, 1865–1866; Professor of Physics, Western Reserve, 1866–1870; Professor of Latin and English Literature, ibid., 1870–1871; Professor of English Literature and History, Iowa Agricultural College, 1887–1894; Professor of English Literature, Ohio State University, 1894–1904; present position since 1904.

EDWARD ORTON, JR.....The Lincoln

Professor of Clay-Working and Ceramics

E. M., Ohio State University, 1884; Assistant on Ohio Geological Survey, 1882; Chemist for Columbus and Hocking Coal and Iron Company, 1885–1886; Superintendent of Blast Furnace at New Straitsville, Ohio, 1887–1888; Superintendent of Victoria Furnace, Goshen Bridge, Va., 1888; Steel Worker, Homestead Steel Works, Homestead, Pa., 1889; Superintendent Ohio Paving Company's Factory, Columbus, Ohio, 1890–1892; Special Assistant on Clays, Ohio Geological Survey, 1892; Superintendent Acme Vitrified Brick Company, Louisville, Ky., 1893; Secretary American Ceramic Society, 1899; State Geologist of Ohio, 1899-1906; present position since 1894.

EMILIUS OVIATT RANDALL.....

257 Woodland Avenue; Supreme Court Building

Professor of Law

Ph. B., Cornell, 1874; LL. B., LL. M., Ohio State University, 1892; admitted to practice, 1890; Secretary Ohio State Historical Society; Reporter Supreme Court of Ohio; present position since 1893.

WILLIAM THOMAS MAGRUDER.....342 West Ninth Avenue

Professor of Mechanical Engineering

M. E., Stevens Institute of Technology, 1881; Practical Experience in Machine Design and Shop Practice, Taunton, Mass., 1881–1886; Student in Chemistry and Mathematics, etc., Johns Hopkins University, 1886–1887; Adjunct Professor of Mechanical Engineering (practical and theoretical), Vanderbilt University, 1887–1896; present position since 1896.

* Absent on leave, 1907–1908.
† Died January 19, 1908.

EDGAR BENTON KINKEAD..1944 Iuka Avenue; New Hayden Bldg.
Professor of Law

M. A., Marietta College, 1904; Assistant State Law Librarian, 1887–1894; in practice since 1891; Special Counsel for Attorney-General of Ohio, 1897–1900; present position since 1895.

WILLIAM HERBERT PAGE..1068 Franklin Avenue; 27 Board of Trade
Professor of Law

B. A., Yale, 1889; LL. B., Ohio State University, 1892; LL. M., ibid., 1894; Instructor in Central High School, Columbus, Ohio, 1889–1896; present position since 1896.

WILLIAM MCPHERSON .....University Campus
Professor of Chemistry

B. Sc., Ohio State University, 1887; M. Sc., ibid., 1890; D. Sc., ibid., 1895; Ph. D., University of Chicago, 1899; Instructor in Chemistry and Physics, Toledo High School, 1887–1889; Instructor in Chemistry and Latin, Toledo High School and Manual Training School, 1889–1892; Assistant in Chemistry, Ohio State University, 1892–1893; Assistant Professor in Chemistry, ibid., 1893–1895; Associate Professor of General Chemistry, ibid., 1895–1897; present position since 1897.

JOSEPH NELSON BRADFORD.....1598 Neil Avenue
Professor of Architecture

M. E., Ohio State University, 1883; Draftsman, Ohio Geological Survey, 1882–1883; Motor Power Department, Pennsylvania Railroad, 1883–1885; Assistant in Mechanical Engineering and Drawing, Ohio State University, 1885–1890; Assistant Professor of Drawing, ibid., 1890–1893; Associate Professor of Drawing, ibid., 1893–1899; present position since 1899.

DAVID STUART WHITE.....1655 Neil Avenue
Professor of Veterinary Medicine, and Dean of the College of Veterinary Medicine

D. V. S., Ohio State University, 1890; Student, Royal Veterinary Schools of Hanover, Berlin, 1890–1891; at Imperial Veterinary Institute of Vienna, 1892; Royal Veterinary College, of Dresden, 1893; Assistant in Veterinary Medicine, Ohio State University, 1893–1895; present position since 1895.

HERBERT OSBORN.....485 King Avenue
Professor of Zoology and Entomology, and Director of the Lake Laboratory

B. Sc., Iowa Agricultural College, 1879; M. Sc., ibid., 1880; Student of Entomology at Museum Comparative Zoology, (Cambridge, Mass.), 1881–1882; College of Physicians and Surgeons, Des Moines, 1884–1885 (Anatomy and Physiology); Zoological Station, Naples (Smithsonian table), 1894–1895; Assistant in Zoology and Entomology, Iowa Agricultural College, 1880–1883; Assistant Professor of Zoology and Entomology, ibid., 1884–1885; Professor of Zoology and Entomology, ibid., 1886–1898; Special Agent Division of Entomology, United States Department of Agriculture, 1885–1894; Entomologist, Iowa Experiment Station, 1890–1898; State Entomologist, Iowa, 1898; present position since 1898.

OLIVE JONES.....95 West Eleventh Avenue
Librarian

B. A., Ohio State University, 1887; Assistant Librarian, 1887; present position since 1893.

HENRY CURWEN LORD.....University Grounds
Professor of Astronomy and Director of the Emerson McMillin Observatory

B. Sc., University of Wisconsin, 1889; Assistant in Washburn Observatory, University of Wisconsin; with Thompson-Houston Electric Company, 1889; Assistant in Mathematics and Astronomy, Ohio State University, 1891–1894; Director and Associate Professor of Astronomy, 1893–1900; elected Fellow, Royal Astronomical Society, 1897; present position since 1900.

FRANK EDWIN SANBORN.....303 West Eighth Avenue
Professor of Industrial Arts and Director of the Department

S. B., in Mechanical Engineering, Massachusetts Institute of Technology, 1889; Assistant in Drawing, Massachusetts Institute of Technology, 1889–1890; Teacher in Manual High School Department, Pratt Institute, 1890-1891; Walker Special Instructor, Tufts College, 1891–1894; Instructor in Mechanical Department, ibid., 1894–1898; Director of the Department of Industrial Arts, Ohio State University, 1898–1900; present position since 1900.

FRANK ARNOLD RAY.....137 King Avenue
Professor of Mine Engineering

E. M., Ohio State University, 1887; Superintendent Building Construction, Elah Terrell & Co., 1887–1888; Assistant Mining Engineer of C. & H. C. & I. Co., 1888–1889; Chief Engineer C. & H. C. & I. Co., 1889–1892; Chief Engineer Congo Mining Co., 1892–1895; Assistant Professor of Mine Engineering, Ohio State University, 1895–1897; Associate Professor, 1897–1900; present position since 1900.

JOHN ALLEN SHAUCK..95 Winner Avenue, Supreme Court Building
Professor of Law

B. A., Otterbein University; LL. B., University of Michigan, 1867; A. M., Otterbein University, 1870; LL. D., ibid., 1897; Judge of the Supreme Court of Ohio; Lecturer on Supreme Court Practice, Ohio State University, 1898–1900; present position since 1900.

CAPTAIN GEORGE L. CONVERSE, U. S. A. (Retired).....
94 Hoffman Avenue, 23 East State Street
Professor of Military Science and Tactics

Present position since 1900.

*JOHN WRIGHT DECKER.
Professor of Dairying

B. Agr., University of Wisconsin, 1890; Fellow in Agriculture, ibid., 1890–1891; Instructor in Dairying, ibid., 1891–1899; Associate Professor of Dairying, Ohio State University, 1899–1901; present position since 1901.

* Died June 20, 1907.

EMBURY ASBURY HITCHCOCK.....380 West Eighth Avenue
Professor of Experimental Engineering

M. E., Cornell, 1890; Straight Line Engine Company, Syracuse, N. Y., 1889; Corliss Steam Engine Co., Providence, R. I., 1890–1893; Assistant in Mechanical Engineering, Ohio State University, 1893–1895; Assistant Professor of Mechanical Engineering in charge of the Department, 1895–1896; Assistant Professor of Experimental Engineering, ibid., 1896–1897; Associate Professor of Experimental Engineering, ibid., 1897–1901; present position since 1901.

FRANCIS CARY CALDWELL.....401 West Sixth Avenue
Professor of Electrical Engineering

A. B., Cornell, 1890; M. E., ibid., 1891; with Thompson-Houston Electric Co., Lynn, Mass., 1891–1892; Student at the National Polytechnic School, Zurich, 1892–1893; Assistant Professor of Electrical Engineering, Ohio State University, 1893–1897; Associate Professor of Electrical Engineering, 1897–1901; present position since 1901.

*CHARLES SMITH PROSSER.
Professor of Geology

B. S., Cornell University, 1883; M. S., ibid., 1886; D. Sc., Union, 1906; Ph. D., Cornell, 1907; Fellow in Natural History, ibid., 1884–1885; Instructor in Paleontology, ibid., 1885–1888; Assistant Paleontologist, United States Geological Survey, 1888–1892; Professor of Natural History, Washburn College, 1892–1894; Assistant Geologist, United States Geological Survey, 1893–1894; Professor of Geology, Union College, 1894–1899; Assistant Geologist, New York Geological Survey, 1895–1899; Assistant Geologist, University Geological Survey of Kansas, 1896; Chief Appalachian Division, Maryland Geological Survey, 1898–1902; Assistant Geologist, Ohio Geological Survey and United States Geological Survey since 1900; Associate Professor of Historical Geology, Ohio State University, 1899–1901; present position since 1901.

JOHN ADAMS BOWNOCKER.....1594 Neil Avenue
Professor of Inorganic Geology and Curator of the Museum

B. Sc., Ohio State University, 1889; D. Sc., ibid., 1897; Principal of High School, Martin's Ferry, 1889–1892; Fellow in Geology, University of Chicago, 1892–1894; Graduate Scholar, Yale University, 1894–1895; Assistant, Geological Survey of Ohio, 1892; Assistant Geological Survey of New Jersey, 1893; Assistant Geologist, Ohio Survey, 1900; State Geologist, 1906—; Assistant in Geology, 1895–1898; Assistant Professor, 1898–1899; Associate Professor of Inorganic Geology and Curator of the Museum, 1899–1901; present position since 1901.

WILBUR HENRY SIEBERT.....182 West Tenth Avenue
Professor of European History

A. B., Ohio State University, 1888; A. B. (with honorable mention), Harvard University, 1889; M. A., ibid., 1890; Student, Freiburg and Berlin, 1890–1891; Student, Harvard, 1895–1897; Assistant in History and Political Science; Ohio State University, 1891–1893; Assistant Professor of History, ibid., 1893–1895; 1897–1898; Associate Professor of European History, 1898; present position since 1902.

* Absent on leave 1907–1908.

CHRISTOPHER ELIAS SHERMAN.....230 West Tenth Avenue
Professor of Civil Engineering

C. E., Ohio State University, 1894; engaged in railroad, geological, and governmental engineering, 1894–1896; Engineer to Park Commission, Springfield, Ohio, and United States Assistant Engineer at Tampa, Florida, and Huntsville, Alabama, summer of 1898; United States Assistant Engineer on Roads and Bridges, Yellowstone National Park, summer of 1899 and 1900; Assistant in Civil Engineering, Ohio State University, 1896–1897; Assistant Professor of Civil Engineering, ibid., 1897–1901; Associate Professor of Civil Engineering, ibid., 1901–1902; present position since 1902.

CHARLES SUMNER PLUMB.....107 West Eleventh Avenue
Professor of Animal Husbandry

B. S., Massachusetts Agricultural College, 1882; Associate Editor, "Rural New Yorker," 1883–1884; First Assistant, New York State Experiment Station, 1884–1887; Professor of Agriculture, University of Tennessee, and Assistant Director Tennessee Experiment Station, 1887–1890; Professor of Agricultural Science, Purdue University, 1890–1894; Professor Animal Industry and Dairying, ibid., 1894–1900; Professor Animal Industry, ibid., 1900–1902; Vice-director Indiana Agricultural Experiment Station, 1890–1891; Director Indiana Agricultural Experiment Station, 1891–1902; present position since 1902.

WILLIAM W. BOYD.....56 North Monroe Avenue
Professor of School Administration and Dean of the College of Education

B. A., Marietta College, 1884; M. A., ibid., 1887; Teacher in Public Schools, 1884–1890; Superintendent of Schools at Marietta, 1890–1898; Superintendent of Schools at Painesville, Ohio, 1898–1902; Member of State Board of School Examiners, 1898–1902; High School Visitor, Ohio State University, 1902-1907; present position since 1907.

SEPTIMUS SISSON.....190 West Eleventh Avenue
Professor of Comparative Anatomy

S. B., University of Chicago, 1898; Ontario Veterinary College, 1891; Demonstrator of Anatomy, Ontario Veterinary College, 1891–1899; Graduate Student, University of Chicago, Summer Quarters, 1900–1901; Student in Anatomy and Anatomical Methods under Waldeyer and Schmaltz in Berlin, and under Ruge and Felix in Zurich, 1905–1906; Associate Professor of Veterinary Science and Zoology, Kansas State Agricultural College, 1899; Professor of Zoology, ibid., 1900; Associate Professor of Veterinary Medicine, Ohio State University, 1901–1903; present position since 1903.

HOMER CHARLES PRICE.....234 West Tenth Avenue
Professor of Rural Economics and Dean of the College of Agriculture and Domestic Science

B. Sc., (Agr.), Ohio State University, 1897; M. S. A., Cornell University, 1899; Fellow in Agriculture, Cornell University, 1898–1899; Assistant in Horticulture, Ohio State University, 1899–1901; Professor of Horticulture and Forestry, Iowa State College, 1901–1903; present position since 1903.

LEWIS ADDISON RHOADES.....162 Fourteenth Avenue

Professor of Germanic Languages and Literatures

A. B., University of Michigan, 1884; A. M., ibid., 1886; Ph. D., Gottingen, 1892; Teacher of English and Latin, Michigan Military Academy, 1884–1885; Teacher of History and German, Ann Arbor High School, 1885–1888; Instructor in German, University of Michigan, 1888–1890; Student at University of Gottingen, 1890–1892; Instructor in German, Cornell University, 1893–1896; Professor of German, University of Illinois, 1896–1903; present position since 1903.

EDMOND BOTHWELL DILLON.....83 Wilson Avenue

Professor of Law

Student special courses of five years, Ohio Wesleyan University; Judge Court of Common Pleas of Franklin County, Ohio; present position since 1904.

JAMES M. BUTLER.....195 East Town Street

Professor of Law

A. B., Ohio Wesleyan University, 1892; LL. B., Ohio State University, 1894; Lecturer in Law, Ohio State University, 1901–1903; City Solicitor, Columbus, 1903–1905; present position since 1904.

*WADE H. ELLIS.....Hartman Hotel

Professor of Law

LL. B., Washington and Lee University, 1898; LL. D. Miami University, 1904; elected Attorney General of Ohio, November, 1903; present position since 1904.

JAMES E. HAGERTY.....259 East Gay Street

Professor of Economics and Sociology

A. B., Indiana University, 1892; Ph. D., University of Pennsylvania, 1900; Instructor in Mathematics, La Porte High School, 1892–1896; Graduate Student, University of Chicago, 1896–1897; Honorary Fellow in Economics, University of Wisconsin, 1897–1898; Student at Berlin and Halle, 1898–1899; Harrison Fellow in Sociology University of Pennsylvania, 1899–1900; Senior Fellow in Sociology, ibid., 1900–1901; Assistant Professor of Economics and Sociology and Acting Head of Department, Ohio State University, 1903–1904; present position since 1904.

DAVID R. MAJOR.....387 King Avenue

Professor of Psychology

B. S., Wabash College, 1890; Ph. D., Cornell University, 1896; Higher Diploma in Education, Teachers' College, Columbia University, 1899; Principal of Schools, Warren, Indiana, 1890–1892; Graduate Student in Philosophy and Sociology, Cornell University, 1892–1896; Scholar in Philosophy, 1894–1895; Fellow, 1895–1896; Principal of High School, Frankfort, Ind., 1896–1898; Fellow in

* Resigned, January 1, 1908.

Education, Teachers' College, Columbia University, 1898–1899; Graduate Student, University of Chicago, Summer Quarter, 1899; Acting Professor of Pedagogy, University of Nebraska, 1899–1900; Assistant in Education, Teachers' College, Columbia University, 1900–1901; Associate Professor of Education, Ohio State University, 1901–1904; Professor of Education, ibid., 1904–1907; present position since 1907.

CHARLES BRADFIELD MORREY.....188 West Tenth Avenue
Professor of Bacteriology

B. A., Ohio State University, 1890; Graduate Student, Ohio State University, 1890–1891; M. D., Starling Medical College, 1896; Assistant in Latin, Ohio State University, 1890–1891; Assistant in Latin and Physiology, 1891–1892; Assistant in Physiology, 1892–1897; Student in Vienna and Paris, 1897–1899; Assistant Professor of Anatomy and Physiology, Ohio State University, 1899–1902; Associate Professor of Anatomy and Physiology, ibid., 1902–1903; Associate Professor of Bacteriology, ibid., 1903–1904; present position since 1904.

GILBERT HOLLAND STEWART.....916 Madison Avenue
Professor of Law

A. B., (Harvard), 1889; Student, Harvard Law School, 1867; Professor of Medical Jurisprudence, Starling Medical College; present position since 1904.

*JOSEPH H. OUTHWAITE.
Professor of Law and Dean of the College of Law

Teacher in Zanesville High School, 1863–1864; Principal of Columbus Grammar School, 1865–1867; admitted to the Bar, 1866; practicing attorney since 1867; Prosecuting Attorney of Franklin County, 1874–1878; Member of Congress, 1885–1895; present position since 1905.

FRANK HARVEY ENO.....48 Smith Place
Professor of Municipal Engineering

B. S., University of Illinois, 1891; C. E., ibid., 1894; Assistant Engineer and Superintendent Department of "Water Supply, Sewerage and Fire Protection," World's Columbian Exposition, 1891–1893; Assistant to Consulting Engineer, Chicago, 1894–1895; City Engineer, Winnetka, Ill., 1895–1898; Assistant Engineer and Chief Draftsman, City Engineer's Office, Columbus, Ohio, 1898–1902; Associate Professor of Civil Engineering, Ohio State University, 1902–1905; present position since 1905.

ALFRED VIVIAN.....375 West Eighth Avenue
Professor of Agricultural Chemistry

Ph. G., University of Wisconsin, 1894; Instructor in Pharmacognosy, ibid., 1894–1895; Assistant in Agricultural Chemistry, ibid., 1895–1897; Instructor in Agricultural Chemistry and Assistant Chemist to Experiment Station, 1897–1902; Associate Professor of Agricultural Chemistry, Ohio State University, 1902–1905; present position since 1905.

* Died January 9, 1908.

EMILY EATON BRACKEN.....The Lenox
Professor of Art

Student at Chicago Art Institute, 1892–1896; University of Chicago, 1894–1895; Summer School, Ipswich, Mass., 1902; New York School of Arts and Teachers' College, Columbia University, 1905–1906; Instructor, Chicago Review School for Teachers, 1894–1896; Public Schools, 1896–1898; Supervisor of Art Instruction, Sterling, Ill., 1898; Circuit Supervisor of Art Instruction, cities of the West and Middle West, 1899–1901; Supervisor of Art Instruction, Louisville, Ky., 1901–1905; in charge of summer work, University of Tennessee, 1904; Ohio State University, 1905–1906; present position since 1906.

JAMES ELLSWORTH BOYD.....92 West Lane Avenue
Professor of Mechanics

B. Sc., Ohio State University, 1891; M. S., Cornell, 1896; Student in Physics and Mathematics, Ohio State University, 1893–1895; Student in Experimental and Theoretical Physics, Cornell, 1895–1896; also Student in Sibley College of Mechanic Arts, Cornell, Summer of 1895; Assistant in Physics, Ohio State University, 1891–1895; held scholarship in Physics, Cornell, 1895; Assistant Professor of Physics, Ohio State University, 1896–1901; Associate Professor of Mathematics, 1901–1906; present position since 1906.

THOMAS EWING FRENCH.....1458 Worthington Street
Professor of Engineering Drawing

M. E., Ohio State University, 1895; Draftsman, The Smith-Vaile Company, Dayton, Ohio, 1888–1890; Instructor in Mechanical Drawing, Y. M. C. A., Dayton, 1888–1891; Chief Draftsman, The Smith-Vaile Company, Dayton, 1891; Assistant in Drawing, 1892–1898; Assistant Professor of Drawing, 1898–1901; Associate Professor of Architecture and Drawing, 1901–1906; present position since 1906.

ARTHUR GILLETT MCCALL.....141 West Eleventh Avenue
Professor of Agronomy

B. Sc. (Agr.), Ohio State University, 1900; Assistant in Physical Laboratory, Bureau of Soils, United States Department of Agriculture, 1900–1904; Assistant Professor of Agronomy, Ohio State University, 1904–1905; Associate Professor of Agronomy, 1905–1906; present position since 1906.

GEORGE WASHINGTON RIGHTMIRE.....322 West Ninth Avenue
Professor of Law

B. Ph., Ohio State University, 1895; A. M., ibid., 1898; Teacher, North High School, Columbus, 1895–1902; Instructor in American History and Political Science, Ohio State University, 1902–1903; Instructor in Law, 1903–1906; present position since 1906.

H. SHINDLE WINGERT.....168 East Fourteenth Avenue
Director of Physical Education for Men

M. D., Maryland Medical College, 1903; Graduate Student, Medical Department, Temple College, 1904–1905; Director of Physical Education, West Philadelphia Y. M. C. A., 1891–1898;

Director of Physical Education, Temple College, 1899–1905; Dean, Philadelphia Normal School of Physical Training, 1900–1905; Member of Faculty, Yale University, Summer School of Physical Education, 1904–1906; Director of Physical Education, Central Y. M. C. A., St. Louis, 1905; Director of Physical Education, Lehigh University, 1906; present position since January 1, 1907.

OSCAR ERF.....The Northern Hotel
Professor of Dairying

B. Sc. (Agr.), Ohio State University, 1899; Assistant Professor of Dairy Manufacture, University of Illinois, 1899–1903; Professor of Dairy and Animal Husbandry, Kansas State Agricultural College, 1903–1907; present position since 1907.

FRANK PIERREPONT GRAVES.....48 South Ohio Avenue
Professor of the History and Philosophy of Education

B. A., Columbia University, 1890; A. M., ibid., 1891; Ph. D., Boston University, 1892; Graduate Student of Greek, Columbia Boston, and Harvard, 1890–1894; Education, University of Chicago, Summer 1901 and 1902–1904; Instructor, Drisler School (N. Y.) 1889–1890; Assistant in Greek, Columbia University, 1890–1891; Assistant Professor of Greek, Tufts College, 1891–1893; Professor of Classical Philology, ibid., 1893–1896; President, University of Wyoming, 1896–1898; President, University of Washington, 1898–1903; Professor of the History and Principles of Education, University of Missouri, 1904–1907; present position since 1907.

FREDERICK RUPERT MARSHALL.....141 West Eleventh Avenue
Professor of Animal Husbandry

B. Sc., (Agr.), Ontario Agricultural College, 1889; B. S. A., Iowa State College, 1900; Assistant Professor of Animal Husbandry, ibid., 1901–1903; Professor of Animal Husbandry, Texas College of Agriculture and the Mechanic Arts, 1903–1907; present position since 1907.

HENRY RUSSELL SPENCER.....289 East State Street
Professor of American History and Political Science

A. B., Colby College, 1899; A. M., Columbia University, 1901; Ph. D., ibid., 1905; Graduate Student, ibid., 1900–1903; Teacher of Latin and Mathematics, Coburn Classical Institute, 1899–1900; Instructor in American History and Political Science, Ohio State University, 1903–1905; Assistant Professor of American History and Political Science, ibid., 1905–1906; Preceptor in History, Politics, and Economics, Princeton University, 1906–1907; present position since 1907.

ALONZO HUBERT TUTTLE.....316 West Seventh Avenue
Professor of Law

A. B., University of Michigan, 1896; A. M., ibid., 1903; Assistant Principal of High School, Ishpeming, Mich., 1896–1898; Principal of High School, Ironwood, Mich., 1898–1900; Instructor in American History and Political Science, Ohio State University, 1900–1902; Graduate Student, Universities of Wisconsin and Michigan, 1902–1903; Assistant Professor American History and Political Science, 1902–1907; present position since 1907.

RUTH AIMEE WARDALL.....The Lenox

Professor of Domestic Science

A. B., University of Illinois, 1903; A. M., ibid., 1907; Graduate Student for one year, ibid., Summer Terms at Universities of Chicago and Columbia; Instructor in Domestic Science, South Dakota State College; Instructor, Summer Terms at Universities of Illinois and Chicago; present position since 1907.

LEWIS C. LAYLIN.....203 West Tenth Avenue

Professor of Law

Superintendent of School, Bellevue, Ohio, 1870–1875; Admitted to the Bar, 1877; Prosecuting Attorney, Huron County, 1879–1885; Member, House of Representatives, 1888–1893; Secretary of State, 1901–1906; Chairman, Ohio Codifying Commission, 1907– ; present position since January, 1908.

CARMI A. THOMPSON.....374 West Sixth Avenue

Professor of Law

B. Ph., Ohio State University, 1892; LL. B., ibid., 1895; Teacher in High School, Bement, Ill., two years; present position since January, 1908.

GEORGE WASHINGTON MCCOARD.....1552 Neil Avenue

Associate Professor of Mathematics

B. A., Bethany, 1873; M. A., ibid., 1882; Principal of Oakdale Classical Normal Institute, Allegheny County, Pennsylvania, 1873–1874; Private Tutor in Cleveland, Ohio, 1874–1880; Principal of Public Schools, Irving Park, Chicago, 1880–1881; Teacher of Latin and Mathematics, Columbus High School, 1881–1882; Assistant in Mathematics and Latin, Ohio State University, 1882–1887; Assistant Professor of Mathematics, ibid., 1887–1889; present position since 1899.

ARTHUR WINFRED HODGMAN.....325 West Tenth Avenue

Associate Professor of the Classical Languages

A. B., Harvard, 1890; A. M., ibid., 1893; Ph. D. (Classical Philology), ibid., 1896; Student in Graduate School, ibid., (Classical Philology), 1892–1896; Instructor in Preparatory Schools, Quincy, Duxbury, Mass., 1890–1892; Assistant in Greek and Latin, Ohio State University, 1896–1897; Assistant Professor of the Classical Languages, ibid., 1897–1899; present position since 1899.

WILLIAM EDWARDS HENDERSON.....182 West Tenth Avenue

Associate Professor of Chemistry

A. B., University of Wooster, 1891; Ph. D., Johns Hopkins University, 1897; Graduate Student, ibid., 1893–1897; Fellow in Chemistry, ibid., 1896–1897; Professor of Natural Sciences, College of Emporia, Kansas, 1891–1893; Professor of Chemistry, Ohio University, 1897–1899; Assistant Professor of Chemistry, 1899–1901; present position since 1901.

JOSEPH RUSSELL TAYLOR.....1497 Michigan Avenue

Associate Professor of English

B. A., Ohio State University, 1887; M. A., Columbia University, 1897; Assistant in Drawing, Ohio State University, 1889–1894; Assistant in Rhetoric, ibid., 1894–1897; University Fellow in Literature, Columbia University, 1896–1897; Assistant Professor of Rhetoric, Ohio State University, 1897–1899; Assistant Professor of English Literature, ibid., 1899–1901; Associate Professor of English Literature, 1901–1904; present position since 1904.

CHARLES A. BRUCE.....235 West Tenth Avenue

Associate Professor of the Romance Languages

A. B., Ohio State University, 1895; Student of French, Amherst Summer School, 1895; Graduate Student, University of Chicago, Summer Quarter, 1896; Student, University of Geneva, Summer School, 1898; Student at the Sorbonne, College de France, and Ecole des Hautes-Etudes Paris, 1898–1899; Graduate Student, University of Chicago, Summer Quarter, 1900; Assistant in French, Ohio State University, 1895–1899; Assistant Professor of Romance Languages, 1899–1901; present position since 1901.

CHARLES WILLIAM FOULK.....1487 Michigan Avenue

Associate Profcssor of Chemistry

B. A., Ohio State University, 1894; Commercial Analytical Work, 1894–1896; Assistant in General Chemistry, 1896–1898; Student, Physical-Chemical Institute, Leipsic, 1899–1901; Assistant Professor of Chemistry, Ohio State University, 1898–1902; present position since 1902.

*JOHN H. SCHAFFNER.....141 West Ninth Avenue

Associate Professor of Botany

A. B., Baker University, Kansas, 1893; A. M., University of Michigan, 1894; M. S., Baker University, 1896; Student in Botany, Zoology, and Geology, University of Michigan, 1893–1895; Student in Botany and Paleo-Botany, University of Chicago, 1896–1897; Assistant in Botany, University of Michigan, 1894–1895; Professor of Natural Sciences, South Dakota University, 1895–1896; Assistant in Botany, Ohio State University, 1897–1899; Assistant Professor of Botany, 1899–1902; present position since 1902.

JAMES STEWART HINE.....1340 Hunter Street

Associate Professor of Zoology and Entomology

B. Sc. (H. F.), Ohio State University, 1893; Superintendent of the N. W. sub-station of the Ohio Agricultural Experiment Station, 1893; Assistant in Horticulture, Ohio State University, 1894; Student in Entomology, Cornell, 1895; Assistant in the Division of Entomology of the United States Department of Agriculture, Summers of 1897 and 1899; Assistant in Entomology, 1895–1899; Assistant Professor of Zoology and Entomology, Ohio State University, 1899–1902; present position since 1902.

* Absent on leave, 1907–1908.

FRANCIS LEROY LANDACRE.....1634 Neil Avenue

Associate Professor in Zoology and Entomology

B. A., Ohio State University, 1895; Student in Chicago University, Summer Quarters of 1898 and 1899; Professor of Embryology in Ohio Medical University since 1896; Assistant in Zoology and Entomology, Ohio State University, 1895–1900; Assistant Professor Zoology and Entomology, 1900–1902; present position since 1902.

WALLACE S. ELDEN.....1734 Summit Street

Associate Professor of the Classical Languages

A. B., Bowdoin, 1889; A. M., ibid., 1892; Ph. D., University of Michigan, 1900; Student in Johns Hopkins University, 1889–1890; Headmaster, Rectory School, Hamden, Conn., 1890–1891; Student in Johns Hopkins University, 1891–1892; Instructor in Latin and French, Ohio State University, 1892–1894; Instructor in the Romance Lnaguages University of Michigan, 1894–1896; Instructor in Latin and Greek, University of Maine, 1896–1897; Assistant Professor of the Classic Languages, ibid., 1897–1899; Student in the University of Michigan, 1899–1900; Assistant Professor of the Classical Languages, Ohio State University, 1900–1902; present position since 1902.

DENNEY HAMMOND UDALL.....212 West Ninth Avenue

Associate Professor of Veterinary Medicine

B. S. A., University of Vermont, 1898; D. V. M., New York State Veterinary College, 1901; Demonstrator in Anatomy, New York S. V. C., 1900–1901; private practice, St. Johnsbury, Vermont, 1901–1903; present position since 1903.

OSCAR V. BRUMLEY.....353 East Thirteenth Avenue

Associate Professor of Veterinary Medicine

Veterinary Surgeon's Certificate, Ohio State University, 1897; practiced, 1897–1898; Graduate Student in Royal Veterinary College, Berlin, Germany, 1902; present position since 1898.

MATTHEW BROWN HAMMOND.....1483 Michigan Avenue

Associate Professor of Economics and Sociology

Ph. B., University of Michigan, 1891; M. L., University of Wisconsin, 1893; Ph. D., Columbia University, 1898; Principal, Versailles Institute, Versailles, Mo., 1891–1892; Graduate Student, University of Wisconsin, 1892–1893; Student of Economics in Tuebingen and Berlin, Germany, 1893–1894; University Fellow in Finance, Columbia University, 1894–1895; Acting Assistant Professor of Economics, University of Missouri, 1896–1897; Assistant in Economics, University of Illinois, 1897–1898; Instructor in Economics, ibid., 1898–1900; Graduate Student in Economics and Sociology, University of Wisconsin, summer of 1900; Assistant Professor of Economics, University of Illinois, 1900–1904; Assistant Professor of Economics and Sociology, Ohio State University, 1904–1905; present position since 1905.

JAMES MCILVAINE PHILLIPS.....32 West Woodruff Avenue

Associate Professor of Veterinary Medicine

M. D., University of Pennsylvania, 1898; Assistant Physician, Municipal Hospital, Philadelphia, 1898–1899; Special Student, Metropolitan Asylum Board Hospital, London, 1899; Lecturer on Pathology, Starling Medical College, 1900; Assistant Physician, St. Francis Hospital, 1901–1902; Assistant Professor of Veterinary Medicine, Ohio State University, 1903–1905; present position since 1905.

GUSTAVUS ADOLPHUS ANDEREGG.....1473 Neil Avenue

Associate Professor of Electrical Engineering

S. B., Oberlin College, 1899; A. B., Harvard University, 1900; A. M., ibid., 1902; Student, Physics and Mathematics, ibid., 1899–1902; Assistant in Physics, Harvard College, 1900–1901; Instructor in Physics, Radcliffe College, 1900–1901; Instructor in Electrical Engineering, Harvard University, 1904–1905; present position since 1905.

VIRGINIA BABB.....316 West Eighth Avenue

Associate Professor of Domestic Art

B. Dom. Sc., Teachers' College, Columbia University, New York, 1904; Supervisor of Domestic Art, 1905; Teacher, Domestic Art, Educational Alliance, New York City, 1904–1905; St. George's Parish School, New York City, 1904; present position since 1905.

CLAIR ALBERT DYE.....1569 Worthington Street

Associate Professor of Pharmacy

G. Ph., Ohio State University, 1891; Ph. D., University of Bern, 1901; Post-Graduate Student in Chemistry and Pharmacy, Ohio State University; Assistant in Chemistry and Pharmacy, 1890–1894; Assistant in Pharmacy, 1894–1898; Assistant Professor of Pharmacy, 1898–1906; present position since 1906.

KARL DALE SWARTZEL.....308 West Eighth Avenue

Associate Professor of Mathematics

B. Sc., Ohio State University, 1893; M. Sc., ibid., 1894; Fellow and Assistant in Mathematics, ibid., 1894–1895; Assistant in Mathematics, ibid., 1895–1896; Austin Scholar, Harvard University, 1902–1903; Assistant Professor of Mathematics, Ohio State University, 1899–1906; present position since 1906.

GEORGE BURRIDGE VILES.....201 West Eleventh Avenue

Associate Professor of Germanic Languages and Literatures

A. B., Harvard University, 1892; A. M., ibid., 1896; Ph. D., Cornell University, 1902; Student at the Sauveur Summer School of Languages, 1892; Instructor in Modern Languages at the Worcester Polytechnic Institute, 1892–1895; Student at the Sauveur Summer School of Languages, 1893 and 1895; Instructor in German, Cornell University, 1896–1902; Student of the University of Leipsic and the Academie of Neuchatel, 1902–1903; Instructor in German at Cornell University, 1903–1904; Assistant Professor of Germanic Languages and Literatures, 1904–1906; present position since 1906.

EDWARD ELSWORTH SOMERMEIER.....1590 Neil Avenue
Associate Professor of Metallurgy and Mineralogy

G. Ph., Ohio State University, 1898; Assistant in Metallurgy and Mineralogy, 1898–1901; Chemical Assistant, Ohio Geological Survey, 1901–1903; Instructor in Metallurgy and Mineralogy, Ohio State University, 1901–1905; Assistant Professor of Metallurgy and Mineralogy, 1905–1906; present position since 1906.

HARRY WALDO KUHN.....316 West Ninth Avenue
Associate Professor of Mathematics

B. Sc., Ohio State University, 1897; Ph. D., Cornell University, 1901; Fellow and Assistant in Mathematics, Ohio State University, 1897–1898: Oliver Scholar in Mathematics at Cornell, 1898–1899; Erastus Brooks Fellow in Mathematics, ibid., 1899–1900; Assistant in Mathematics, ibid., 1900–1901; Assistant Professor of Mathematics, Ohio State University, 1901–1907; present position since 1907.

FREDERICK EDWARD KESTER.....318 West Ninth Avenue
Associate Professor of Physics

M. E. (in E. E.), Ohio State University, 1895; M. A., Cornell, 1899; Ph. D., ibid., 1905; Scholarship in Physics, Cornell, 1898–1899; Student in Goettingen, 1903–1904; Cornell, 1904–1905; Fellow and Assistant in Physics, Ohio State University, 1895–1897; Assistant in Physics, ibid., 1897–1898; Instructor in Physics, ibid., 1899–1901; Assistant Professor of Physics, ibid., 1901–1907; present position since 1907.

J. WARREN SMITH.....1422 Oak Street
Lecturer on Meteorology

B. S., New Hampshire College of Agriculture and Mechanic Arts, 1888; M. S., ibid., 1899; special course in Meteorology at Harvard University in 1890 and 1891; employed in United States Weather Bureau since 1888; present position, Section Director in charge Columbus Station and the Ohio Section of the Climate and Crop Division of the Bureau.

WILLIAM LUCIUS GRAVES.....1313 Forsythe Avenue
Assistant Professor of English

B. A., Ohio State University, 1893; M. A., ibid., 1897; Instructor in High School, Coshocton, 1894–1895; Fellow and Assistant in Rhetoric and English Languages, Ohio State University, 1895–1896; Assistant Professor of Rhetoric and English Language, 1896–1904; present position since 1904.

CHARLES LINCOLN ARNOLD.....328 West Eighth Avenue
Assistant Professor of Mathematics

B. Sc., Ohio State University, 1890; M. Sc., ibid., 1894; Student, University of Chicago, Summer 1894–1895; Assistant in Mathematics, Ohio State University, 1890–1899; Austin Scholar, Harvard University, 1903–1904; present position since 1899.

GEORGE H. MCKNIGHT.....289 East State Street
Assistant Professor of English

A. B., Cornell, 1892; Ph. D., ibid., 1896; Instructor in English, ibid., 1892–1897; Cornell Traveling Fellow in English Philology, 1897–1898; Student in Freiburg, 1897–1898; Student in Paris and London, 1898–1899; Assistant Professor of Rhetoric and English Language, 1899–1904; present position since 1904.

VERNON MORELLE SHOESMITH.....145 West Ninth Avenue
Associate Professor of Agronomy

B. Sc., Michigan Agricultural College, 1901; Assistant in Agronomy, Kansas State Agricultural College, 1901–1905; Assistant Professor of Agronomy, ibid., 1905–1907; Agronomist, Maryland Agricultural Experiment Station, 1907–1908; present position since January, 1908.

WILLIAM ABNER KNIGHT.....206 West Lane Avenue
Assistant Professor of Machine-Shop Practice

M. E., Ohio State University, 1900; thirteen years practical experience in workshops; Assistant in the Industrial Department and Foreman of the Machine Shops, 1893–1898; Assistant in Industrial Arts and Instructor in Machine Work, 1898–1900; Instructor in Machine Work, 1900–1901; present position since 1901.

THOMAS HARVEY HAINES.....396 King Avenue
Assistant Professor of Philosophy and Director of the Psychological Laboratory

B. A., Haverford College, 1896; M. A., ibid., 1897; M. A., Harvard University, 1898; Ph. D., ibid., 1901; Assistant in Philosophy, ibid., 1898–1899; Assistant Professor of Philosophy, Ohio State University, 1901–1905; present position since 1905.

VERNON H. DAVIS.....172 South Ohio Avenue
Assistant Professor of Horticulture and Forestry

B. Sc. (Agr.), Ohio State University, 1900; M. S. A., Cornell University, 1901; Assistant in Horticulture and Forestry, Ohio State University, 1901–1902; present position since 1902.

HORACE JUDD.....245 West Fourth Avenue
Assistant Professor of Experimental Engineering

M. E., Ohio State University, 1897; M. Sc., ibid., 1899; Fellow and Laboratory Assistant in Mechanical Engineering, 1897–1899; Student in Experimental Engineering, 1897–1899; Student in Experimental Engineering at Cornell University and at Stevens Institute of Technology, Summer of 1898; Instructor in Department of Science and Technology, Pratt Institute, 1899–1902; present position since 1902.

EDWIN F. CODDINGTON.....410 Fifteenth Avenue
Assistant Professor of Mechanics

C. E., Ohio State University, 1896; M. Sc., 1897; Ph. D., University of Berlin, 1902; Emerson McMillin Fellow in Astronomy, Ohio State University, 1896–1897; Fellow in Astronomy, Lick Observatory, University of California, 1897–1900; Student in University of Berlin, Germany, 1900–1902; present position since 1902.

EDGAR SHUGERT INGRAHAM.....396 King Avenue

Assistant Professor of Romance Languages

A. B., Colgate University, 1897; Ph. D., University of Pennsylvania, 1903; Instructor in German, Colgate Academy, 1896–1897; Assistant in Modern Languages, Colgate College, 1897–1899; Student in France, Summer of 1897–1898; University Scholar in Romance Languages, Columbia University, 1899–1900; Student University of Freiburg-in-Baden, Summer semester 1900; Student at Sorbonne, Paris, 1900–1901; University Scholar in Romance Languages, Columbia University, 1901–1902; Instructor in Modern Languages, Blake School, New York City, 1901–1902; Harrison Fellow in Romance Languages, University of Pennsylvania, 1902–1903; present position since 1903.

ROBERT F. EARHART.....29 East Sixteenth Avenue

Assistant Professor of Physics

B. Sc., Northwestern University, 1893; Ph. D., University of Chicago, 1900; Electrician, People's Power Company, Moline, Illinois, 1893–1897; Graduate Student, Johns Hopkins University, 1897–1898; Graduate Student, University of Chicago, 1898–1899; Fellow in Physics, ibid., 1899–1900; Instructor in Physics, Michigan Military Academy, 1900–1901; Instructor in Physics, Rose Polytechnic Institute, 1901–1903; present position since 1903.

THOMAS KENYON LEWIS.....239 West Tenth Avenue

Assistant Professor of Engineering Drawing

B. Sc., Ohio State University, 1894; Student, ibid., 1894–1895; Summers of 1897 and 1898, at Cincinnati Art Academy; Columbia University, 1906–1907; Assistant in Drawing, Ohio State University, 1894–1901; Instructor in Architecture and Drawing, ibid., 1901–1904; Assistant Professor of Architecture and Drawing, ibid., 1904–1906; present position since 1906.

EDGAR HOLMES MCNEAL.....120 Hamilton Avenue

Assistant Professor of European History

A. B., University of Chicago, 1896; Ph. D., ibid., 1902; Instructor in European History, Ohio State University, 1902–1905; present position since 1905.

WILLIAM LLOYD EVANS.....1168 Fair Avenue

Assistant Professor of Chemistry

B. Sc., Ohio State University, 1892; M. Sc., ibid., 1896; Ph. D., University of Chicago, 1905; Graduate Student, Chemistry, Ohio State University, 1894–1895; Fellow in Chemistry, University of Chicago, 1903–1905; Assistant in Ceramics, Ohio State University, 1896–1897; Instructor in Chemistry, Colorado Springs High School, 1897–1902; present position since 1905.

FAYETTE AVERY MCKENZIE.....83 Sixteenth Avenue

Assistant Professor of Economics and Sociology

B. S., Lehigh University, 1895; Ph. D., University of Penn., 1906; Professor of Modern Languages and Social Science, Juniata College, 1897–1900; Graduate Student, University of Pennsylvania,

1900–1905, in Sociology, Economics, and American History; Master, Modern Languages, Blight School, Philadelphia, Pa., 1900–1903; Teacher, Indian Boarding School, Shoshone Agency, Wyoming, 1903–1904; present position since 1905.

CARSON SAMUEL DUNCAN.....185 East Fifteenth Avenue

Assistant Professor of English

B. A., Wabash College, 1901; M. A., ibid., 1902; M. A., Columbia, 1905; Graduate Student, Wabash College, 1902; Columbia University, 1904–1905; Teacher, Wabash College, 1902; Warsaw High School, 1903; Winona Technical Institute, 1904; present position since 1905.

GEORGE DAVID HUBBARD.....1333 Dennison Avenue

Assistant Professor of Geology

B. S., University of Illinois, 1896; M. S., ibid., 1898; A. M., Harvard University, 1901; Ph. D., Cornell University, 1905; Graduate Student in Geology and Geography, University of Illinois, 1896–1900, Harvard University, 1901–1902, Cornell University, 1903–1905; Assistant in Geology, University of Illinois, 1897–1900; Teacher of Geography, Eastern Illinois State Normal School, 1901–1903; Assistant in Physical Geography, Cornell University, 1903–1904; Instructor in Physical Geography, ibid., 1904–1905; Instructor in Geography, ibid., Summer of 1904 and 1905; present position since 1905.

ROY K. SCHLAFLY.....1473 Neil Avenue

Assistant Professor of Civil Engineering

C. E., Ohio State University, 1903; present position since 1905.

ARTHUR ERNEST DAVIES.....295 Seventeenth Avenue

Assistant Professor of Philosophy

Student in Owen's College, Manchester, England, and University College, London, 1884–1888; B. D., Yale Divinity School, 1891; Ph. D., Yale University, 1898; Instructor in Philosophy, Ohio State University, 1900–1906; present position since 1906.

JOHN CHRISTIE DUNCAN.....71 West Eleventh Avenue

Assistant Professor of Economics and Sociology

B. S., University of Pennsylvania, 1903; M. S., ibid., 1904; Ph. D., ibid., 1907; Graduate Student, ibid., 1903–1906; Assistant, ibid., 1904–1906; present position since 1906.

BERTHOLD AUGUST EISENLOHR.....1627 North High Street

Assistant Professor of the Germanic Languages and Literatures

B. Ph., Ohio State University, 1898; M. A., ibid., 1905; Teacher of German and Physics, Portsmouth, Ohio, High School, 1892–1896; Assistant in German, Ohio State University, 1896–1897; Instructor in Columbus Latin School, 1897–1898; Instructor in Germanic Languages, Indiana University, 1900–1901; Instructor in German, Ohio State University, 1901–1906; present position since 1906.

ALBERT D. FITZGERALD.....71 East Woodruff Avenue

Assistant Professor of Comparative Anatomy and Pathology

D. V. M., Ohio State University, 1905; Teacher in Public Schools of Seneca and Sandusky Counties for ten years previous to entering the University; Private Assistant to Dr. Sisson and Dr. Phillips, 1904–1905; Instructor in Comparative Anatomy, 1905–1906; present position since 1906.

ROBERT FISKE GRIGGS.....1507 Hunter Avenue

Assistant Professor of Botany

B. Sc., Ohio State University, 1903; M. A., University of Minnesota, 1906 Student at Minnesota Seaside Station, season of 1905; Fellow in Botany, Ohio State University, 1905–1906; Instructor in Biology, Fargo College, 1903–1904; Professor of Biology, ibid., 1904–1905; present position since 1906.

WALTER THOMSON PEIRCE.....283 East State Street

Assistant Professor of Romance Languages

B. A., Ohio Wesleyan University, 1894; A. M., University of Michigan, 1896; Ph. D., Johns Hopkins University, 1906; Student, University of Michigan, 1895–1896; Western Reserve University, 1898–1901; Paris, 1898 and 1906; Johns Hopkins University, 1901–1903 and 1905–1906; Instructor in French, Case School of Applied Science, 1896–1901; Assistant Professor of Romance Languages, Indiana University, 1903–1905; present position since 1906.

JOHN BOWKER PRESTON.....290 East Fifteenth Avenue

Assistant Professor of Mathematics

M. A., University of Virginia, 1876; Student, University of Leipzig, 1878–1879, University of Berlin, 1879–1880; Associate Principal, Norwood College, 1881–1884; Principal, University School (Covington, Ky.), 1884–1886; Professor, Ogden College, 1886–1906; present position since 1906.

SAMUEL EUGENE RASOR.....414 West Eighth Avenue

Assistant Professor of Mathematics

B. Sc., Ohio State University, 1898; M. A., ibid., 1902; S. M., University of Chicago, 1906; Fellow in Mathematics, ibid., 1898–1899; Professor of Mathematics, Amity College, Iowa, 1899–1900; Graduate Student, University of Chicago, four quarters, 1903–1906; Instructor in Mathematics, Ohio State University, 1901–1906; present position since 1906.

JAMES RENWICK WITHROW.....1619 Highland Street

Assistant Professor of Chemistry

B. S. (Chem.), University of Pennsylvania, 1899; Ph. D., ibid., 1905; Chemist, Barrett Manufacturing Co., Coal Tar Products, 1899; Charge of Testing and Research Laboratory and of Benzol and Light Oil Departments, same firm, 1900–1903; Harrison Scholar in Chemistry, University of Pennsylvania, 1903–1904; University Scholar in Chemistry, ibid., 1904–1905; Assistant Instructor in General Chemistry, University of Illinois, 1905; Instructor in Analytical Chemistry, ibid., 1906; present position since 1906.

FREDERIC COLUMBUS BLAKE.....1806 North High Street
Assistant Professor of Physics

Ph. B., University of Colorado, 1901; Ph. D., Columbia University, 1905; Fellow, Columbia University, 1903–1907; Student at Cambridge (Eng.), 1905–1906, at Berlin, 1906–1907; Assistant in Physics, University of Colorado, 1900–1901; Instructor, Leadville High School, 1901–1903; Instructor, University of Colorado Summer School, 1904; present position since 1907.

CHARLES ST. JOHN CHUBB.....135 West Eighth Avenue
Assistant Professor of Architecture

C. E. (Arch.) Ohio State University, 1904; Graduate Student in Architecture, University of Pennsylvania, 1906–1907; present position since 1907.

JOHN HERMAN HUNT.....316 West Ninth Avenue
Assistant Professor of Electrical Engineering

B. S. in E. E., University of Michigan, 1905; with Western Electric Co., 1905–1906; Instructor in Electrical Engineering, Washington University, 1906–1907; present position since 1907.

ROSS C. PURDY.....253 East Woodruff Avenue
Assistant Professor of Clayworking and Ceramics

Certificate, Short Course in Clayworking, Ohio State University, 1898; Nat. B. M. Scholarship, 1898–1899; Chemist and Assistant Superintendent Mosaic Tile Co., 1899–1901; Chemist and Foreman, Glazing and Burning Departments, Roseville Pottery Co., 1901–1902; Assistant in Ceramics, Ohio State University, 1902–1905; Instructor in Ceramics, University of Illinois, 1905–1907; present position since 1907.

MAY REBECCA LAVER.....The Lenox
Assistant Professor of Art

Graduate of Chicago Art Institute, 1900; Instructor, Normal Art Institute, two years; John Dewey Experimental School, one year; Supervisor of Drawing, Goshen, W. Lafayette, and Wabash, Ind., 1902–1907; present position since 1907.

CARL RIGDON.....1293 Hunter Avenue
Assistant Professor of Experimental Engineering

M. E., Ohio State University, 1905; Fellow in Experimental Engineering, 1905–1906; Erecting Engineer, Westinghouse Machine Co., 1906–1907; present position since November, 1907.

BERTHA M. HOPKINS.....1524 Highland Street
Director of Physical Education for Women

B. Ph., Ohio State University, 1902; M. A., Oberlin College, 1904; Physical Director, Jackson (Mich.) Y. W. C. A., 1904–1905; Physical Director, Youngstown (Ohio) Y. W. C. A., 1905–1906; present position since 1906.

WILLIAM C. MILLS.....78 West Tenth Avenue
Curator of Archæology

B. Sc., (H. F.), Ohio State University, 1898; M. Sc., ibid., 1902; Curator and Librarian of the Ohio State Archæological and Historical Society; Librarian, Ohio Academy of Science.

*WILLIAM HENRY RENCK.....124 West Frambes Avenue

Instructor in Pattern Making and Founding

Assistant in Industrial Arts and Foreman of the Carpenter and Pattern Shops, 1899; present position since 1900.

CHARLES PHILIP CROWE.....421 West Seventh Avenue

Instructor in Forging

Lebanon Normal School, Lebanon, Ohio; Teacher in Public Schools of Delaware and Union Counties, two years; Forge-shop experience, seven years; Manufacturer of Steel Forging and Springs, six years; Assistant in Industrial Arts and Forge Master, 1899; present position since 1900.

JOHN SATTERLEE TIDBALL.....351 Twentieth Avenue

Instructor in Engineering Drawing

B. S., Cornell University, 1880; Student, Art Students' League, New York City; Assistant in Architecture and Drawing, Ohio State University, 1902–1903; present position since 1903.

E. S. GUTHRIE.....139 West Ninth Avenue

B. S. A., Iowa Agricultural College, 1906.

Instructor in Buttermaking

RALPH ROGERS .....10 West Woodruff Avenue

Instructor in Engineering Drawing

ROBERT MEIKLEJOHN.....1528 Worthington Street

Instructor in Engineering Drawing

M. E., Ohio State University, 1904; present position since 1905.

MAY THOMAS.....162 East Fourteenth Avenue

Instructor in Germanic Languages and Literatures

Ph. D., University of Zurich, Switzerland, 1897; Student at the Universities of Wisconsin, Chicago, Leipsic, 1898–1903; Instructor, Milwaukee-Downer College, 1897–1898; Lockwood School, 1898–1901; Antioch College, 1903–1905; present position since 1905.

ADOLF BUSSE.....316 West Ninth Avenue

Instructor in Germanic Languages and Literatures

A. B., Northwestern University, 1899; A. M., ibid., 1900; Ph. D., Harvard, 1906; Student, Northwestern University, 1899–1900; Berlin, 1900–1902; Harvard, 1902–1903; Assistant in German, Northwestern University, 1899–1900; Harvard, 1902–1903; Instructor, University of Wisconsin, 1903–1904; Northwestern University, 1904–1906; present position since 1906.

ALLANDO CASE.....180 West Frambes Avenue

Instructor in Vise Work

Machinist, four years; with Columbus Machine Co., in charge of testing floor, one year, and on erecting and road work, two years; Machinist, Ohio State University, 1904–1906; present position since 1906.

* Resigned January 1, 1908.

FREDERICA DETMERS.....134 West Ninth Avenue
Instructor in Botany

B. Sc., Ohio State University, 1887; M. Sc., ibid., 1891; Assistant Botanist, Ohio Agricultural Experiment Station, 1889–1891; Botanist, ibid., 1891–1892; Science Teacher, North High School, Columbus, 1896–1906; present position since 1906.

FRANK COWEN MCKINNEY.....185 East Fifteenth Avenue
Instructor in English

B. A., Ohio State University, 1901; M. A., ibid., 1902.

RAYMOND JESSE SEYMOUR.....1175 Highland Street
Instructor in Anatomy and Physiology

B. Sc., Ohio State University, 1900; M. S., Tufts College, 1901; M. D., Ohio Medical University, 1904; Fellow, Tufts College, 1900–1901; Assistant in Pathology, O. M. U., 1901–1903; Fellow, Ohio State University, 1903–1904; Assistant in Anatomy and Physiology, 1904–1906; present position since 1906.

EUGENE FRANKLIN MCCAMPBELL...22 East Seventeenth Avenue
Instructor in Bacteriology

B. Sc., University of Chicago, 1904; Graduate Student, ibid., Summer Quarter, 1906; Assistant in Bacteriology, University of Wisconsin, Fall Term, 1905; Instructor, Pueblo (Colo.) High School, 1906; present position since 1906.

W. J. NORRIS.....60 East Eighth Avenue
Instructor in Engineering Drawing

Fifteen years experience as practical designer and illustrator.

FRANK KELTON BAILEY.....1622 Neil Avenue
Instructor in Physics

B. S., Colorado College, 1898; Ph. D., Clark University, 1906; Scholar and Fellow, ibid., 1898–1901, and 1904–1906; Assistant, Allegheny Observatory, 1901–1904; Assistant in Physics, Collegiate Department, Clark University, 1904–1906; present position since 1906.

CLARENCE CHARLES VOGT.....401 King Avenue
Instructor in Chemistry

A. B., Wooster University, 1904; Fellow in Chemistry, Ohio State University, 1904–1905; Assistant in Chemistry, 1905–1906; present position since 1906.

CLEMENT M. BEEM.....80 East Eleventh Avenue
Instructor in Patternmaking and Founding

Patternmaker, Buckeye Malleable Iron and Steel Casting Co., 1900–1904; Patternmaker and Assistant in Industrial Arts, Ohio State University, 1904–1908; present position since 1908.

ALFRED EWINGTON .....The Westminster
Instructor in Romance Languages and Literatures

A. B., McKendree College, 1897; A. M., ibid., 1898; Student in Romance Languages, University of Missouri, 1901–1902; Teacher, Romance Languages; Summer Session, ibid., 1902; Assistant Pro-

fessor of Romance Languages, *ad interim*, University of Kansas, 1902–1903; Instructor in French, Washington University, 1903–1907; present position since 1907.

F. H. HESKETT.....229 West Eighth Avenue
Instructor in Architecture

EDMUND SEWALL MANSON, JR.....212 West Tenth Avenue
Instructor in Astronomy

S. B., Massachusetts Institute of Technology, 1897; S. M., ibid., 1898; Student, ibid., 1897–1898; Computer, Lowell Observatory, 1899–1901; Assistant Harvard Observatory, (Peru), 1902–1907; present position since 1907.

A. B. NYSTROM.....80 West Eighth Avenue
Instructor in Buttermaking

B. Sc. (Agr.), Kansas State Agricultural College, 1907; present position since 1907.

GILBERT PENNOCK.....190 West Tenth Avenue
Temporary Instructor in English

A. B., Antioch College, 1902; A. M., Ohio State University, 1904; Student in English, ibid., 1902–1904; Instructor in English, Oberlin College, 1905–1907; present position since 1907.

CHARLES SHEARD .....55 West Maynard Avenue
Instructor in Physics

A. B., St. Lawrence University, 1903; M. A., Dartmouth College, 1907; Student in Physics, ibid., 1905–1907; Science Teacher, Waterville High School, (N. Y.), 1903–1905; Instructor, Dartmouth College, 1905–1907; present position since 1907.

RICHARD HERMAN WILLIAMS.....103 West Eleventh Avenue
Instructor in Animal Husbandry

B. S. A., Toronto University, 1905; M. S., University of Illinois, 1907; Student, ibid., 1906–1907; Assistant in Animal Husbandry, ibid., 1906–1907; present position since 1907.

C. E. BLANCHARD.....185 West Frambes Avenue
Instructor in English

LL. B., University of Michigan, 1906; present position since 1906.

WILLIAM FRANKLIN GEPHART.....38 Eighteenth Avenue
Instructor in Economics and Sociology

B. A., Ohio State University, 1904; M. A., ibid., 1905; Fellow in Economics and Sociology, ibid., 1906–1907; Student, Summer Session, University of Chicago, 1907; present position since 1907.

JOHN BERNARD PARKER.....39 East Norwich Avenue
Instructor in English

B. A., Ohio State University, 1898; M. A., ibid., 1900; Student, ibid., 1898–1900; 1906–1908; Fellow in English, ibid., 1898–1900; Teacher in English and Natural History, South High School, Cleveland, 1900–1906; Assistant in English, Ohio State University, 1906–1907; present position since 1907.

GEORGE ROBERT BOTT.
Instructor in Civil Engineering

M. E., Ohio State University, 1901; in charge of department of Drawing, Miller Manual Labor School, 1901–1902; present position since 1907.

CLARENCE ADDISON DYKSTRA.....1462 Neil Avenue
Instructor in American History and Political Science

B. A., State University of Iowa, 1903; Student in History, University of Chicago, 1903–1904; Instructor, Pensacola Classical School, 1904–1906; Fellow in History, University of Chicago, 1906–1908; present position since January, 1908.

A. B. GRAHAM.....130 West Lane Avenue
Superintendent of Agriculture Extension Work

JOHN ROSS CHAMBERLIN.....124 King Avenue
Assistant in Civil Engineering

KENNETH BAKER WARD.....244 West Tenth Avenue
Assistant in Civil Engineering

C. E., Ohio State University, 1905.

JAMES A. BEER.....30 West Tenth Avenue
Assistant in Anatomy and Physiology

B. Sc., Ohio State University, 1903; M. A., ibid., 1906.

CHARLES W. MCCLURE.....105 West Lane Avenue
Assistant in Anatomy and Physiology

B. A., Ohio State University, 1906.

SAMUEL MORRIS.....477 West Seventh Avenue
Assistant in Chemistry

ULYSSES W. DENMAN,
Assistant in Patternmaking

CALVIN LESTER COGGINS,
Assistant in Physics

B. S., Rhode Island College of Agriculture and Mechanic Arts, 1907.

H. G. CARPENTER.....157 West Tenth Avenue
Student Assistant in Mine Engineering

EDWARD SPEASE.....1892 North High Street
Assistant in Pharmacy

ALFRED HENRY BARNES.....325 West Tenth Avenue
Assistant in Physics

M. E. in E. E., Ohio State University; present position since 1907.

WILLIAM LEANDER CLEVENGER.....1567 Worthington Street
Assistant in Milk Sanitation

B. Sc. (Agr.) Ohio State University, 1906; Student, ibid., 1906–1907; present position since 1907.

MAXWELL E. COROTIS.....Horticultural Building
Assistant in Horticulture and Forestry

ALFRED PAUL DACHNOWSKI.....175 West Eleventh Avenue
Substitute Assistant in Botany

Ph. D., University of Michigan, 1906; Student, University of Berlin, 1900; University of Vienna, 1901; University of Michigan, 1903–1906; Assistant in Botany, ibid., 1903–1906; present position since 1907.

WILLIAM JOSEPH DAVIS.....186 West Ninth Avenue
Assistant in Agricultural Chemistry

B. Sc. (Agr.), Ohio State University, 1907; present position since 1907.

KATHRYN DARNELL.....Grove City, Ohio
Student Assistant in Physical Education for Women

F. BROWNE GROSVENOR.....125 West Tenth Avenue
Student Assistant in Bacteriology

C. F. JACKSON.....132 East Eleventh Avenue
Assistant in Zoology and Entomology

J. THOMAS KIBLER.....45 West Tenth Avenue
Assistant in Physical Education for Men

JOHN MCBRIDE KNOTE.....Fifteenth and Indianola Avenues
Laboratory Assistant in Ceramics

A. B., Wittenberg College, 1904; M. A., Ohio State University, 1906; Fellow, Chemistry, ibid., 1904–1905; Assistant in Chemistry, ibid., 1905–1907; present position since 1907.

W. F. MARTIN.....40 West Tenth Avenue
Student Assistant in Experimental Engineering

HENRY PAUL MILLER.....Westerville, O.
Assistant in Animal Husbandry (Winter Term)

B. S., Antioch College, 1890; D. V. M., Ohio State University, 1896; M. S., Antioch, 1898.

WALTER HENRY MYTTINGER.....68 Buttles Avenue
Assistant in Anatomy and Physiology

B. A., Ohio State University, 1907; present position since 1907.

A. W. SCHORGER.....32 East Sixteenth Avenue
Assistant in Chemistry

B. A., Wooster University.

RICHMOND LEE SHIELDS.....26 West Norwich Avenue
Assistant in Agricultural Extension

B. Sc. (Agr.), Ohio State University, 1907; present position since 1907.

CLIFFORD SHOEMAKER.....Grogan, Ohio
Assistant in Civil Engineering

ORSON E. WARFIELD.....236 West Lane Avenue
Assistant in Physical Education for Men

WOLSEY GARNET WORCESTER.....389 West Fifth Avenue
Laboratory Assistant in Ceramics

CHARLES S. FISHER.....46 West Tenth Avenue
Assistant in Mechanical Engineering
M. E., Ohio State University, 1907; present position since 1907.

C. E. MCQUIGG.....244 West Tenth Avenue
Student Assistant in Metallurgy and Mineralogy

G. J. ALSTETTER.....124 West Woodruff Avenue
Student Assistant in Metallurgy and Mineralogy

D. R. KELLOGG.....159 West Eighth Avenue
Assistant in Physics

GEORGE ROBERT HYSLOP.....80 West Eighth Avenue
Assistant in Agronomy
B. Sc. (Agr.), Ohio State University, 1907.

ADOLPH FEIEL.....520 East Main Street
Assistant in Physiology
Assistant Instructor in Histology, Starling Medical College, 1880–1898; Instructor in Histology, ibid., 1898–1907; present position since 1907.

J. B. SHAW.....1509 Hunter Street
Student Assistant in Civil Engineering

R. T. UPP.....130 West Ninth Avenue
Student Assistant in Industrial Arts

LIBRARY ASSISTANTS

HARRIET TOWNSHEND.....53 West Eleventh Avenue
Assistant in Library

MAUD DOROTHY JEFFREY.....161 East Fourteenth Avenue
Reference Librarian
B. Ph., Ohio State University, 1895.

GERTRUDE STOWELL KELLICOTT.....156 West Sixth Avenue
Accession Librarian

CHARLES W. REEDER.....183 West Ninth Avenue
Assistant Reference Librarian
B. A., Ohio State University, 1906.

ELIZABETH SMYTHE.....242 East Gay Street
Assistant in Library

LILLIAN S. HUFFMAN.....1374 Forsythe Avenue
Assistant Accession Librarian
B. Ph., Ohio State University, 1899.

MIRPAH G. BLAIR.....1737 Summit Street
Head Cataloguer

RUSSELL J. BURT.....1100 Neil Avenue
Night Assistant

NON-RESIDENT INSTRUCTORS IN THE SUMMER TERM

ALBERT G. BAUERSFELD.....Chicago, Ill.
Director of Manual Training, Thomas Hoyne Manual Training School

CHARLES HAUPERT, Ph. D.....Wooster, Ohio
Superintendent of Schools

MARY L. OBERLIN.....Greenville, Ohio
Instructor in Domestic Science

FRANCIS B. PEARSON, B. A.....Columbus, Ohio
Principal East High School

MRS. ALICE F. ROLLINS.....Minneapolis, Minn.
Principal of Sheridan School

W. E. SIMONDS, Ph. D.....Galesburg, Ill.
Professor of English, Knox College

NON-RESIDENT LECTURERS IN THE SUMMER TERM

J. W. CARR, A. M.....Dayton, Ohio
Superintendent of Schools

J. E. MORRIS, B. S.....Alliance, Ohio
Superintendent of Schools

W. McK. VANCE, A. M.....Delaware, Ohio
Superintendent of Schools

W. E. ROBERTS A. M.....Cleveland, Ohio
Supervisor of Manual Training

H. S. PIATT, Ph. D.....Coshocton, Ohio
Superintendent of Schools

NON-RESIDENT INSTRUCTORS AT THE LAKE LABORATORY

L. B. WALTON, Ph. D.....Gambier, Ohio
Professor of Biology, Kenyon College

MALCOLM E. STICKNEY, A. M.....Granville, Ohio
Assistant Professor of Botany, Denison University

LYNDS JONES, Ph. D.....Oberlin, Ohio
Associate Professor of Zoology, Oberlin College

CHARLES BROOKOVER, B. Ped., M. S.....Akron, Ohio
Professor of Biology, Buchtel College

W. B. HERMS, A. M.....Delaware, Ohio
Acting Professor of Zoology, Ohio Wesleyan University

FELLOWS

(For statement concerning Fellowships see page 81.)

GRACE MARIE BAREIS.....23 King Avenue
Fellow in Mathematics
B. A., Heidelberg University (O.), 1897.

LILLIAN TRIMBLE.....1562 Worthington Street
Fellow in Domestic Science
B. A., University of Illinois, 1906.

CECIL E. BOORD.....230 West Ninth Avenue
Fellow in Chemistry
B. A., Wabash College, 1907.

SHERMAN DANIEL CHAMBERS.....401 King Avenue
Fellow in Mathematics
B. S., Baldwin University, 1904.

JESSIE HUTSINPILLAR.....59 Chittenden Avenue
Fellow in English
B. A., Wellesley, 1902.

HOWARD JOHNSON LUCAS.....292 East Seventeenth Avenue
Fellow in Chemistry
B. A., Ohio State University, 1907.

Sergius Morgulis.....130 East Eleventh Avenue
Fellow in Zoology and Entomology
M. A., Columbia University, 1907.

LOU HELEN MORGAN.....237 West Eleventh Avenue
Fellow in Chemistry
B. Ph., Marietta College, 1905; M. A., ibid., 1907.

WILLIAM CLIFFORD MORSE.....1950 North High Street
Fellow in Geology
B. A., Ohio State University, 1906; Fellow in Zoology, ibid., 1906–1907.

EDNA MAY MCCLEERY.....1447 Highland Street
Fellow in Botany
B. A., Ohio State University, 1907.

J. WALTER SALE.....145 West Ninth Avenue
Fellow in Chemistry
B. A., DePauw University, 1907.

H. H. SEVERIN.....32 East Eighteenth Avenue
Fellow in Zoology and Entomology

BEATRICE HAZEL SHEETS.....290 Woodland Avenue
Fellow in Economics and Sociology
B. A., Ohio State University, 1907.

GEORGE W. STRATTON.....158 West Frambes Avenue
Fellow in Chemistry
B. A., University of Colorado, 1907.

EDGAR JOHN WITZEMANN.....161 West Eighth Avenue
Fellow in Chemistry
B. A., John Millikin University, 1907.

DAVID M. FYFFE.
Superintendent of Live Stock

JOHN CHISHOLM.....University Farm House
Superintendent of University Farm

G. W. HOOD.
Florist

GUSTAVE BRUDER.....229½ South High Street
Band Master

R. M. ROYER.....236 East Eleventh Avenue
Storekeeper (Chemical Store Room)

L. N. Funk.....16 West Lane Avenue
Assistant Storekeeper

STANDING COMMITTEES OF THE UNIVERSITY FACULTY

COMMITTEE ON AMUSEMENTS AND RECEPTIONS

Professor Smith, *Chairman*
Professor Bowen
Professor Caldwell
President Thompson

ATHLETIC BOARD

Professor Kauffman (for one year)
Professor Bleile (for two years)
Professor Thomas (for three years)

COMMITTEE ON TIME SCHEDULE

President Thompson, *Chairman*
Assistant Professor Kuhn
Assistant Professor Lewis
Assistant Professor Schlafly
Assistant Professor Coddington

COMMITTEE ON COMMENCEMENT

Professor Sherman, *Chairman*
Professor J. E. Boyd
Professor French
President Thompson

DEBATE AND ORATORY COUNCIL

Professor Denney
Professor Knight
Professor Hagerty
Professor Scott

COMMITTEE ON DIPLOMAS

Professor French

HIGH SCHOOL COMMITTEE

PRESIDENT THOMPSON, *Chairman*
PROFESSOR W. W. BOYD
PROFESSOR SIEBERT
PROFESSOR MAJOR
PROFESSOR MCPHERSON
PROFESSOR CALDWELL
PROFESSOR HAGERTY
PROFESSOR GRAVES

LIBRARY COUNCIL

PRESIDENT THOMPSON, *Chairman*
PROFESSOR PRICE
PROFESSOR DENNEY
PROFESSOR W. W. BOYD
PROFESSOR RAY
PROFESSOR OUTHWAITE
PROFESSOR KAUFFMAN
PROFESSOR WHITE
MISS JONES, *Librarian*

MILITARY AND GYMNASIUM BOARD

CAPTAIN CONVERSE
DR. WINGERT
PROFESSOR RIGHTMIRE (for one year)
PROFESSOR BLEILE (for two years)
PROFESSOR THOMAS (for three years)

COMMITTEE ON RULES

MR. STEVENS, *Chairman*
PROFESSOR PRICE
PROFESSOR DENNEY
PROFESSOR W. W. BOYD
PROFESSOR RAY
PROFESSOR OUTHWAITE
PROFESSOR KAUFFMAN
PROFESSOR WHITE

ENTRANCE BOARD

PRESIDENT THOMPSON
PROFESSOR DENNEY
PROFESSOR SMITH
PROFESSOR FRENCH
ASSOCIATE PROFESSOR BRUCE, *Secretary*
ASSOCIATE PROFESSOR HENDERSON, *Chairman*
PROFESSOR SPENCER
ASSOCIATE PROFESSOR SWARTZEL

SUMMER TERM

PRESIDENT THOMPSON
PROFESSOR MAGRUDER, *Dean*
PROFESSOR GRAVES, *Secretary*
PROFESSOR SANBORN
PROFESSOR SIEBERT
PROFESSOR BOWEN
PROFESSOR VIVIAN

PUBLICATION BOARD

PRESIDENT THOMPSON, *Chairman*
PROFESSOR PRICE
PROFESSOR KNIGHT
PROFESSOR BOWEN
PROFESSOR BOWNOCKER
PROFESSOR FRENCH
MR. STEVENS, *Secretary*

OHIO STATE UNIVERSITY

LOCATION

The University is situated within the corporate limits of the City of Columbus, two miles north of the Union Station and about three miles from the State Capitol. The University grounds consist of four hundred and thirty-three acres, of which about three hundred and twenty-three acres are devoted to agricultural and horticultural purposes.

The University may be reached by either the North High Street or the Neil Avenue electric cars.

HISTORY

The land grant made by the United States under an act approved by President Lincoln, July 2, 1862, provided that there should be granted to each State an amount of public land equal to thirty thousand acres for each Senator and Representative to which the State was entitled by the apportionment of the census of 1880. The proceeds under this act were to constitute a perpetual fund, the capital of which was to remain forever undiminished, and the interest of the same was to be inviolably applied by each State which should take and claim the benefits of the act to the endowment, support, and maintenance of at least one "college where the leading objects shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

Governor Tod, in November, 1862, brought the subject before the State Board of Agriculture and later to the attention of the Legislature. In January, 1864, Hon. Columbus Delano introduced a bill accepting the grant. This became a law February 9, 1864, and pledged the faith

of the State to the performance of all the conditions and provisions contained therein. In 1866, an act introduced by Hon. J. T. Brooks was pasesd, which provided for the establishment of the Ohio Agricultural and Mechanical College, but the provisions were not carried into effect, and a second act, introduced by Hon. R. P. Cannon, was passed in 1870, entitled, "An act to establish and maintain an Agricultural and Mechanical College in Ohio." Under the provisions of this act the institution was located in Columbus, and the Board proceeded to the organization of the college and the election of a faculty of instruction. The institution was opened for the reception of students on the seventeenth day of September, 1873.

In 1878 the Legislature passed "An act to reorganize and change the name of the Ohio Agricultural and Mechanical College and to repeal certain acts therein mentioned." The act provided that the institution should be hereafter designated as "The Ohio State University." Up to this time but one appropriation had been made by the State for the support of the institution. With the reorganization came the larger and broader view of the State's relation to public education, and since that time the Ohio State University has enjoyed a more generous support by the State.

The original endowment has been supplemented, and the objects of the University promoted, by a permanent annual grant from the United States, under an act of 1890, by special appropriations of the General Assembly; and in 1891, by a permanent annual grant from the State, which grant was doubled by the Legislature of 1896. In accordance with the spirit of the law under which it is organized, the State University aims to furnish ample facilities for education in the liberal and industrial arts, the sciences and the languages, and for thorough technical and professional study of agriculture, engineering in its various departments, veterinary medicine, pharmacy, and law. Through the aid which has been received from the United States, and from the State, it is enabled to offer its privileges, with a slight charge for incidental expenses, to all persons of either sex who are qualified for admission.

ADMINISTRATION AND ORGANIZATION

ADMINISTRATION

The governing body of the Ohio State University is a Board of Trustees, appointed by the Governor of the State and confirmed by the Senate, for terms of seven years.

Under the Board of Trustees the management is vested in the President, as the executive head of the University, and in the University Faculty, whose duties are legislative.

The President assigns members of the instructional force to membership in the faculties of the several colleges in accordance with the rules of the University Faculty. These faculties have jurisdiction in all matters that pertain exclusively to the colleges they represent, subject to higher University authority. The executive committees of the several colleges, composed of the deans and other members appointed by the deans, have charge of minor questions of discipline and administration.

ORGANIZATION

The Ohio State University embraces seven colleges.
The College of Agriculture and Domestic Science,
The College of Arts, Philosophy, and Science,
The College of Education,
The College of Engineering,
The College of Law,
The College of Pharmacy,
The College of Veterinary Medicine.

The College of Agriculture and Domestic Science offers four-year courses in Agriculture, Horticulture and Forestry, and Domestic Science, and short courses (two years) in Agriculture and Horticulture, and winter courses (ten weeks) in Agriculture and Dairying.

The College of Arts, Philosophy, and Science offers work in the Undergraduate Courses (four years), in the Graduate School (three years), and in the Lake Laboratory (summer term).

The College of Education offers work in the Undergraduate Courses (two years based on two years of Arts College work), Graduate Courses in Education, and certain courses (two years) leading to a certificate.

The College of Engineering offers four-year courses in Architecture, Ceramics, Chemical Engineering, Civil Engineering, Electrical Engineering, Industrial Arts, Manual Training, Mechanical Engineering, Mine Engineering, and short courses (two years) in Clay Working, Industrial Arts, and Mining.

The College of Law offers an Undergraduate Course of three years.

The College of Pharmacy offers a Course in Pharmacy of four years, and a Short Course in Pharmacy of two years.

The College of Veterinary Medicine offers a Course in Veterinary Medicine of three years.

DEGREES

FIRST DEGREES

The following baccalaureate degrees are conferred at graduation upon those who have successfully completed the regular courses leading to such degrees and who have fulfilled all other requirements of the University:

Bachelor of Arts
Bachelor of Science in Agriculture
Bachelor of Science in Horticulture and Forestry
Bachelor of Science in Domestic Science
Bachelor of Science in Education
Bachelor of Science in Chemical Engineering
Bachelor of Science in Industrial Arts
Bachelor of Science in Pharmacy
Ceramic Engineer
Civil Engineer
Civil Engineer in Architecture
Engineer of Mines
Mechanical Engineer
Mechanical Engineer in Electrical Engineering
Bachelor of Laws
Doctor of Veterinary Medicine.

HIGHER DEGREES

In the College of Arts, Philosophy, and Science:

Master of Arts
Doctor of Philosophy

Advanced degrees are also given for graduate work in the technical colleges.

ADMINISTRATION AND ORGANIZATION

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The College of Education,
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The College of Law,
The College of Pharmacy,
The College of Veterinary Medicine.

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Bachelor of Science in Domestic Science
Bachelor of Science in Education
Bachelor of Science in Chemical Engineering
Bachelor of Science in Industrial Arts
Bachelor of Science in Pharmacy
Ceramic Engineer
Civil Engineer
Civil Engineer in Architecture
Engineer of Mines
Mechanical Engineer
Mechanical Engineer in Electrical Engineering
Bachelor of Laws
Doctor of Veterinary Medicine.

HIGHER DEGREES

In the College of Arts, Philosophy, and Science:

Master of Arts
Doctor of Philosophy

Advanced degrees are also given for graduate work in the technical colleges.

BUILDINGS

UNIVERSITY HALL

University Hall contains the Executive offices, the office of the Secretary of the Board of Trustees, the offices of the Dean and the Secretary of the College of Arts, Philosophy, and Science, the assembly room (seating twelve hundred persons), four halls for literary societies, the Y. M. C. A. and Y. W. C. A. rooms, the Young Women's room, and lecture and seminary rooms for the departments of Economics, Education, English, German, Greek, History, Latin, Mathematics, Political Science, Philosophy, Psychology, and Romance Languages. An electric passenger elevator connects all floors.

BOTANICAL HALL

Botanical Hall accommodates the laboratories, lecture rooms, and museum of the department of Botany. Connected with this building is a large greenhouse and propagating house.

ORTON HALL

Orton Hall contains the geological, paleontological, anthropological, and economic museums and collections; the petrographical, geographical, and paleontological laboratories; and lecture rooms for the department of Geology. The general University library and reading room are also located in Orton Hall.

HAYES HALL

Hayes Hall is devoted to instruction in Industrial Arts, Shopwork, and Domestic Science. It contains the model dining room, kitchen, and laboratory of the department of Domestic Science, lecture rooms, the machine shop, the forge shop, and the foundry, and the carpenter and pattern shops.

HORTICULTURAL HALL

Horticultural Hall contains recitation rooms and indoor laboratories of the department of Horticulture and Forestry. An extensive greenhouse is attached.

VETERINARY BUILDINGS

The Veterinary Hospital accommodates the dispensary, detention wards, and operating hall of the department of Veterinary Medicine.

The Veterinary Laboratory is the headquarters of the college of Veterinary Medicine. It contains the Veterinary museum and laboratories of Pharmacology, Pathology, Histology, and Bacteriology; rooms for clinical demonstrations, incubator room, a large ampitheater, lecture halls, and a reading room.

THE OBSERVATORY

The Emerson McMillin Observatory is the gift of Mr. Emerson McMillin, of New York. It contains the telescope, the astronomical library, lecture room and laboratory, photographic dark room, comparator room, instrument shop, spectroscopic laboratory, a zenith telescope room, and theodolite room; near by is the transit house.

TOWNSHEND HALL

This building is the headquarters of the College of Agriculture. It contains lecture rooms, a reading room, and extensive laboratories for Agricultural Chemistry, for work in soils and farm crops, and for dairying; rooms for pasteurizing, refrigerating, butter-making, cheese-making, cheese-curing, and dairy mechanics; the agricultural museum, and soil storage-room. Detached from the main building, but connected with the soil storage room by a tramway, is a glass house for the study of soils and the experimental growth of plants. Connected with Townshend Hall is a building from which power and steam are furnished for the Dairy. The Townshend Literary Society has a room in Townshend Hall seating two hundred people.

BIOLOGICAL HALL

Biological Hall accommodates the departments of Entomology and Zoology and Anatomy and Physiology. It contains lecture rooms, preparation rooms, general and special laboratories, and the museums of these departments.

THE GYMNASIUM AND ARMORY

The Gymnasium and Armory has a drill hall and gymnasium floor eighty feet wide by one hundred and fifty feet long. There is a running track around the entire room about twelve feet from the floor, back of which is a vistiors' gallery seating about seven hundred persons.

PAGE HALL

Page Hall is occupied by the College of Law. The first story is utilized for class and lecture rooms, seven in number, with seating accommodations for five hundred students, and for the offices of the Dean, the Secretary, and the Faculty. On the second floor are two large reading rooms, a fire-proof room for the book stacks, designed ultimately to give shelving space to 50,000 volumes.

BROWN HALL

Brown Hall is devoted to Civil Engineering, Architecture, and Drawing. The building is two stories high, with basement above grade line. It consists of a main structure with a frontage of 217 feet, and two short wings in the rear.

PHYSICS HALL

This building is 105 feet long by 102 feet deep, four stories high, and cost $80,000, besides $10,000 for new equipment. In the basement are two large electrical laboratories, a photometer room, two constant-temperature rooms, storage-battery room, dynamo room, and shop. The first floor contains a large sophomore laboratory and smaller advanced laboratory, apparatus room, balance and standards room, mercury room, offices, etc. On the second floor are a large lecture room, seating 250, a smaller lecture room, apparatus room, chemical laboratory, photographic dark rooms, instructor's room, and ladies' rest room, while the third floor has a grating room, elementary laboratory, and two class rooms. The building is provided with fifty-one slate-capped piers and heavy wall brackets of brick, with an aggregate of 780 square feet of slate tops, a pendulum shaft seventy-five feet high, and many other special features in its construction.

CHEMICAL HALL

The Chemical Hall accommodates the departments of Chemistry and Pharmacy. The building is a large two-story brick, with a well-lighted basement. In the basement are two large laboratories for elementary students, accommodating 800 students. In addition there are a number of small rooms designed for work in industrial chemistry. The west half of the first floor is occupied by the College of Pharmacy. The east half of the first floor consists of a large laboratory for organic chemistry with accommodations for 60 students, a lecture room, a research laboratory, a library room, and the office and private laboratory of the Professor of Chemistry. The central room of the first floor it occupied by the store room, which always has on hand a complete stock of all necessary materials for chemical work. On the second floor are the offices, laboratories and lecture rooms of the professors of physical chemistry and of analytical chemistry.

THE SCHOOL OF MINES BUILDING

This building accommodates the departments of Metallurgy and Mineralogy, Mine Engineering, and Ceramics. It is a substantial three-story brick structure, 220 feet long by 70 feet wide, with two one-story fire-proof wings, 40 by 50 feet. The department of Mine Engineering is equipped with a lecture room, museum and model room, a large drawing room, photographic room, blue-printing room, a room for surveying instruments, and a shop for their adjustment and repair, a workshop for model and apparatus making, a ventilating plant, consisting of fans in the basement and long pipe systems in the attic, by which the ventilation of mines may be illustrated and the flow of air under low heads studied. The department of Mineralogy and Metallurgy is equipped with an office, two large lecture rooms, a large mineral collection, and a room for blow-pipe analysis and determinative mineralogy, a metallurgical museum, a chemical laboratory, and instructor's laboratory, a sampling and ore-dressing plant, an assay room with furnaces and special laboratories for the ultimate analysis of fuels, for gas analysis, for calorimetry, for metallography, and for research. The equipment of the

Ceramics department includes lecture room, museum, chemical and physical laboratories, a large drafting room, and a special laboratory for teaching and research in the silicate industries. In addition a large room has been set aside for library and reading room purposes for the joint use of the three departments.

THE NEW ENGINEERING LABORATORY

The building is of modern shop construction, with saw-tooth roof, and is made up of one 48-foot and seven 30-foot divisions, which, together with enclosed galleries at the sides, give a total width of 310 feet. The enclosed galleries with the space under them are used for special laboratories, class-rooms, and offices. Each division is abundantly lighted by sash occupying almost the whole area of the north slopes of the roof and thus admitting only diffused light. The framing of the roof and galleries is of steel, supported on steel columns. All partitions are of brick, thus making the building practically fire-proof. Along the columns between the divisions, run four balconies, eight feet wide, the full depth of the building. The columns are designed of sufficient strength to carry tracks for travelling cranes, and brackets therefor are attached.

Mechanical Engineering

Beginning at the south side of the building under the enclosed gallery are located the offices, recitation, instrument, and locker rooms with similar rooms above. In the first division is located all machines for the testing of materials. The second division is devoted to hydraulics. There are nine cisterns of concrete, of capacities from nine thousand to thirty thousand gallons with weirs above and openings at the bottom, thus permitting the cisterns to be connected as may be desired. In one cistern is a well, thirty feet deep, for the purpose of testing pumping machinery on variable lifts. Along the south side of the cisterns, there is a flume of concrete with provisions for weirs at several points. All steam machinery is located in the third division with the boiler-room on one side and water supply for condensing purposes on the other. The boiler-room division has space for six different types of

boilers with air-preheater, economizer, superheater, independent superheater, feedwater heaters, induced and forced-draft fans, and all apparatus pertaining to a complete boiler and fuel-testing plant. The testing of fuels will be further made very complete by means of the gas-producers and gas-engines located in the west end of this division. On the outside of the 100-foot chimney there is a safety ladder leading to observation platforms at different levels. The next division contains a small ampitheater for demonstrating purposes, having a seating capacity of one hundred and twenty persons, and the automobile and locomotive testing plants. The main portion of the laboratory is heated and ventilated by a double fan system, so arranged as to be flexible for the purpose of experiments and research work in heating and ventilating.

Electrical Engineering

Next to the division containing the locomotive railway laboratory and the auditorium comes the first one belonging to the Electrical department. This is for electric railway testing and high potential work. At the west end is a large door-way similar to that of the locomotive laboratory through which electric railway cars can be brought into the building. At the other end of this division is placed a hundred and fifty thousand volt-transformer, and other similar equipment. The two remaining divisions are used respectively for the alternating current and direct current laboratories. The marble switch-boards for these are placed back to back near the center of the wire screen dividing the divisions. From these switch-boards, circuits are carried through a tunnel to the machines and other apparatus. These, which comprise all the important types of electrical machinery in commercial use, are arranged in rows along the wire ducts near the sides of the divisions thus leaving an aisle in the center in which the tables for the testing instruments are placed. Near the center of the wire partition, dividing the two laboratories, is the instrument room, opening into each laboratory and supplied with cases for the measuring instruments and desks for the laboratory instructors.

THE NEW GROUP OF AGRICULTURAL BUILDINGS

The legislature of 1906 appropriated $80,000 for the erection of a Live Stock Judging Pavilion, Cattle Barn and Horse Barn. The buildings are of brick with limestone trimmings and have red tile roofs. They are of a uniform style of architecture, and face to the east on a macadamized roadway extending north past Townshend Hall and the Veterinary Laboratory. The fronts of the buildings approximate 50 feet from the roadway.

Live Stock Judging Pavilion

This building consists of a front portion 21 x 62 feet, used for offices and class-rooms, and a rear portion 54 x 112 feet in greatest dimension. In front an open porch nine and one-half feet wide leads into a hallway of the same width. On the left of the hall is a suite of four office rooms, and on the right three offices. The second floor has two class-rooms and the third floor one class-room and a dark room for photography. The basement has a concrete floor and contains two rooms. The walls are finished with white plaster.

The main feature of the building is the Judging Pavilion. This has a width of 50 feet with a tan-bark arena 20 x 112 feet. The north and south ends of this room have double doors ten feet wide through which teams may be driven at speed that students may study the gaits of horses. A tier of platforms provide seating capacity for several hundred persons. Forty-three windows on south, west, and north furnish light, while a large skylight in the center adds to the illumination. An extensive system of electric lights also provides for additional lighting. A series of large doors, hung on overhead tracks, provide for changing this room into three rooms, so that three classes may be engaged in the building judging stock at one time.

Horse Barn

The Horse Barn has a main frontage of 63 feet and a depth to the wings of 48 feet. Two wings extend back of the main front, each having a width of 35 feet and a length of 82 feet. The wings cover an extreme width of 108 feet back of the front portion, with an unpaved yard between, 39 feet wide. In this yard is an open shed 20 feet wide.

The main part of this barn has a concrete floor laid off in grooved blocks 6 x 12 inches. One-half of the front is reserved for a coach room, the other and north half, for a farm wagon room. Connected with each room is a harness room for light harnesses, a closet for tools, a small water trough, hitching and grooming space and wash rack. The south wing contains 12 box and 6 open stalls for light horses. The north wing contains 6 box and 14 open stalls for farm and work horses. Each wing has an isolation box stall. There is also a soak stall. Wide alleys pass between the stalls in each wing. Each wing has clay floors both in stalls and alleys. Fire doors, when closed, cut off each wing from the main front.

Back of the main front and connecting the front of each wing is a feed mixing room 16½ x 20 feet. Metal down chutes lead from the bottom of six grain and feed bins just above. These bins are made of 2 x 4 joist spiked together, and each bin is lined with galvanized sheet iron. The main front upstairs contains two bed-rooms and a storage room for hay. The wings have a second floor with low roof, but with considerable storage capacity for baled hay and straw. Down chutes for hay connect from the second floor to the stalls below.

The stalls have hard pine partitions of 1½-inch plank 4 feet 9 inches high, on top of which is woven ¼-inch wire grating of 2½-inch mesh, extending two feet above the woodwork. Windows 3 x 4 feet, with sills 6 feet above the floor of the stalls, furnish light and ventilation.

Cattle Barn

The Cattle Barn consists of a main front 144 feet north and south, by 48 feet deep east and west. On the west are two wings, approximately 104 feet long and 38 feet wide. The south wing, which is used for dairy cattle, has a milk receiving room on its south side 12½ x 17 feet.

The main approach to the Cattle Barn is up a slight incline through a large door. Beneath the roadway at the entrance to the barn is a root cellar 15¼ x 17 feet. On the first floor of the barn is located the office of the superintendent of live stock, at the right of the main entrance. On the left are the feed and grain bins. There are six of these bins, which open at the floor into down chutes which lead into the feed mixing room on the basement floor. On this

main floor there are also three small seed grain rooms, lined with wire to make them mice and rat proof. There are also two bed chambers for herdsmen. Platform hay scales, with reading beam in the superintendent's office, are just within the main entrance.

The basement floor of the main barn is 78 feet long, and has a rough covering of concrete. A passageway 17 feet wide extends the entire length. On the north end, under an extension of the main building, are four box stalls for bulls, opening into yards. On the east side is a feed mixing room; a milling room; the root cellar; a toilet room with shower bath and lockers; a storage room; and isolation stall for sick animals. Box stalls occupy the remainder of this floor. The south end contains 16 calf pens, varying in size from 5 x 8 to 6 x 9, separated by five-foot alleys. Each wing has a rough concrete floor. In the dairy wing are 34 Drown stalls and two box stalls and a brick, enclosed room for placing machinery for operating a milking machine. The Drown stalls are 3½ x 5½ feet back of the manger to manure gutters on one side and 4 x 6 feet on the other side, for larger cattle. The cows face a feeding alley five feet wide. A continuous concrete manger about two feet wide at the top extends along the front of the stalls. A concrete silo 16 feet inside diameter and 36 feet high is located at the west end of each wing, directly connected with the feeding alley.

The beef cattle wing contains nine box stalls, mostly 9 x 12 feet, along the north side. A six-foot passage way passes along in front of the box stalls, with nine double open stalls and one single on the south of the alley. These stalls have cement mangers and iron partitions and posts, to which chain ties are fastened. Each wing has a fire door, which when closed, separates the wing from the main part.

WOMEN'S DORMITORY

This building will be ready for occupancy in September, 1908, and will provide accommodations for from fifty to sixty young women. In the basement is a dining room, kitchen, and laundry; on the first floor are four double and three single rooms, the dean's living room and office, and the parlors; on the second and third floors are single and double rooms for students; in the attic are large store rooms.

Residences—There are eight dwelling houses upon the University campus. Six of these are brick and two are frame structures. One is occupied by the President of the University, six by professors, and the eighth is the farm house.

POWER PLANT

The boiler room is 38 x 100 feet, and is equipped with five 150-horse power boilers, with Babcock and Wilcox chain grates and Murphy automatic stoker. There are also coal and ash conveyors for the whole plant. At one end of the boiler room is the coal room, and at the other the pit for the hot well, from which runs the tunnel (about three-fourths of a mile in length) to the buildings of the University, carrying heat, gas and water pipes and power, light, and other wires. Near the boiler house is the power house, 40 x 60 feet. The power-generating plant consists of a 70-horsepower McEwen compound engine, belted to a 60-kilowatt two-phase Westinghouse alternator, and a 200-horsepower Watertown compound, directly connected to a 125-kilowatt two-phase generator. A ten-ton traveling crane is available for handling the machinery in this room. In the basement are condensers, which get their water from a large cooling reservoir at the side of the building. Here are also the transformers that convert the current to be used in the motors scattered over the campus, from 110 volts, at which it is generated, to 400 volts, at which it is transmitted.

There is also a complete experiment boiler outfit. This equipment was furnished by Stillman W. Robinson, Emeritus Professor of Mechanical Engineering. A Babcock & Wilcox boiler of 107-horsepower, built for a working pressure of 200 pounds, with hand-fired furnace of the oven firebrick type, is the principle of the system. The products of combustion, after passing the boiler, can be conducted direct to the open air by the chimney or otherwise, or into a Green's fuel economizer, where its 750 square feet of heating surface transfers heat to the feed water on its way to the boiler. The heat of the escaping gases can still further be absorbed by an air heater having 1,330 square feet of heating surface. The heat thus taken up is transmitted to the air employed in the fuel combustion. For promoting combustion, natural draft may be employed, or

when greater intensity of draft is desired above that produced by the chimney, the latter can be cut out and a Sturtevant induced-draft fan, driven by a direct connected engine, brought into action. In combination with either mechanical, induced, or natural draft, forced draft produced by a belt-driven Sturtevant fan may be employed, and the air forced into the ash pit may be taken from the boiler room direct, or by a system of underground flues be compelled to pass through the air heater on its way to the fan. Weighing and collection tanks, in conjunction with a steam pump, supply the boiler with known quantities of water, which flows by the way of the economizer or to the boiler direct. In this feed water system is a Hayden's feed water purifier, with live steam heater, which may be used in conjunction with the economizer. Draft intensity and temperatures are determined at many points throughout the system; a Le Chatelier pyrometer being used for high, and mercurial pyrometer for low temperatures. An Arndt's econometer indicates continuously the percentage of carbon dioxide in the escaping gases, while at the same time the Orsat's apparatus is used for giving absolute composition.

LABORATORIES AND EQUIPMENT

AGRICULTURAL CHEMISTRY

The laboratory will accommodate more than two hundred students and the lecture room the same number. Each desk in the laboratory contains a complete outfit of chemicals and apparatus and is supplied with gas, water, and hood for the evaporation of noxious gases and liquids. There are also a balance room, private laboratories and a students' laboratory for organic analysis; a room for water analysis, and for the polariscopic determination of sugar.

AGRONOMY

For the work in farm equipment and rural engineering the department is supplied with apparatus for studying the effect of grade, height of obstruction, height of hitch, size of wheel, and weight of load, on the draft of wagons. Correct and incorrect methods of constructing and using the doubletree are studied by means of a large, adjustable model. A wooden model demonstrates the effect of the angle of hitch upon the pulling capacity of the horse. The draft of vehicles and farm implements is studied by means of a self-registering dynamometer. The agricultural machinery room contains many of the latest models of farm machinery, including binders, mowers, plows, cultivators, and gasoline engines. Several drainage levels and an architect's level are provided for the student's use in laying out drainage systems. A plane table is used for mapping and laying out fields. A small cement laboratory provides facilities for studying the use of cement and concrete on the farm. A large glass house with its equipment of railroad tracks, trucks, and pots, affords opportunity for the study of the adaptability of crops to soils, the fertilizer requirements of different soils, and various other problems of crop production. The soil laboratory is provided with apparatus for the study of the physical properties of soils, including specific gravity, the retention of moisture, the effect of mulches on evaporation, the rate of percolation of water through soils, and the capillary rise of moisture in soils. The laboratory is also provided with a complete centrifugal outfit for the mechanical analysis of soils, and electrical instruments for determining temperature and soluble salt content. In the study of crops, use is made of the collection of dried specimens of grasses,

grains, and seeds, and the growing crops on the farm. The grass garden contains about fifty varieties of grasses and forage crops growing side by side so that a comparative study may be made as to the value of each for pasture, meadow, or hay. A corn-breeding plot gives opportunity for the study of methods of selection and breeding of seed corn.

ANATOMY AND PHYSIOLOGY

The facilities provided for the study of anatomy, histology, and physiology are excellent. The laboratory is supplied with skeletons, papier mache manikin and many models, including models of the eye, ear, larynx, etc. The apparatus of the department for work in physiology is of the best and most approved construction, and is adapted to the thorough performance of the fundamental physiological experiments. Myographs, spectroscopes, microscopes, and the necessary chemical outfit are also provided. For work in histology the equipment includes twenty-four individual tables for student experiments, each table being supplied with a good microscope, microscopical accessories, microscopical reagents; and for advanced work the needed apparatus for instruction in the various methods of hardening, staining, imbedding, section-cutting, and injection. The laboratory also has excellent microtomes, imbedding baths, and other essentials of an histological outfit. The equipment of the laboratory makes it possible to offer a large range of work for the choice of students in advanced courses.

ANIMAL HUSBANDRY

The University herd consists of about seventy-five head of cattle and a varying number of swine and sheep. These include excellent specimens of pure bred Shorthorn, Jersey, Holstein-Friesian, and Red Poll cattle, and a variety of grade and pure bred beef steers. Classes are also taken to stock farms about Columbus and in neighboring counties, where methods of feeding and handling may be studied and animals inspected. Each year a class of twenty-five or more attends the International Live Stock Exposition at Chicago, visiting also the Union stock yards and packing houses. The department possesses an extensive collection of herd, flock, and stud books of the various American and European breeding associations, a large collection of lantern slides of breeds and types of animals, and of various instruments for measuring and studying stock, as well as specimens of feeding stuffs, wools, and other animal products.

ARCHITECTURE

For work in Architecture two well-lighted designing rooms in Brown Hall are equipped with the needed tables, lockers, etc., and the lecture room is provided with an electric projection lantern. The department has models in plaster and wood illustrating the constructive and ornamental forms of different styles of architecture, photographs and lantern slides, drawings and specifications of erected structures, plates of architectural forms and ornaments, and samples of building material. For experimental work in heating and ventilation there are the necessary instruments, such as anemometers, hygrometers, carbonic acid testers, and thermometers. For photography there is an especially built dark room with forty-three developing compartments; also two laboratories equipped with toning and mounting tables; printing apparatus, copying cameras, lenses of long and of short focus, tele-photographic lens, color screens, shutters, and an excellent outfit for photo-micrography.

ASTRONOMY

The equipment of the Emerson McMillin Observatory consists of a twelve-inch equatorial telescope, mounting by Warner & Swasey, objective by Mr. Brashear, with a large and powerful spectroscope by Mr. Brashear, adapted to use either one or two prisms or a grating, provided with a double set of objectives, one corrected for the visual and one for the photographic rays; a position micrometer with a seven-inch circle by Warner & Swasey; a combined zenith telescope and transit instrument of three inches clear aperture by Mr. G. N. Saegmuller; a sidereal clock by Clemens Riefler, of Munich; a comparator by Carl Zeiss; a four-inch portable equatorial by Alvan Clark; a chronograph by Warner & Swasey; sextants, chronometers, meteorological instruments; a zenith telescope, theodolite with twelve-inch horizontal and vertical circles, and smaller theodolites by Houghton & Simms. The equipment of the spectroscopic laboratory consists of a five-inch concave grating, with Rowland's form of mounting by Brashear, a large spectrometer, two comparators, one by Zeiss and one by Gaertner, a heliostat by Gaertner, a 110-volt storage battery, gas engine, dynamo and large induction coil; and an excellent astronomical library.

BACTERIOLOGY

The Laboratory of Bacteriology occupies a portion of the new Veterinary Laboratory Building. There is a laboratory accommodating about thirty students, another with places for fifteen, a

private laboratory and office, a room for experimental animals, one for inoculated animals, and two incubator rooms. These rooms are each equipped with the necessary incubators, hot air and steam sterilizers, autoclaves, microscopes, microtomes, etc., with facilities for advanced and original work.

BOTANY

The general Botanical Laboratory occupies a part of the second floor of Botanical Hall. It is furnished with both movable and fixed tables. Water, gas, and an evaporating hood are provided for each table. The laboratory is equipped with compound microscopes of the Bausch and Lomb, the Leitz, and other patterns; and accompanying each is a tray of tools and a case of reagents. There are more than fifty dissecting microscopes; also charts and several minor pieces of apparatus for experiments in vegetable physiology. Three smaller rooms are also provided as laboratories for special work, as well as a dark room for photography. Other facilities are: a general herbarium, including flowering plants, ferns, mosses, fungi, and algæ; a state herbarium, a collection of fruits and seeds, valuable timbers, woods, grasses, and various economic products of the vegetable kingdom; ornamental grounds and woodland, planted with a large variety of evergreen and deciduous trees and shrubs; and a greenhouse with a fair collection of native and exotic plants.

CHEMISTRY

The laboratories of the department will accommodate about one thousand students. Each laboratory is equipped with all the necessary conveniences—water, gas, electric lights, distilled water, steam ovens, automatic air blasts, suction pumps, etc. The department is liberally supplied with the best apparatus and materials for both lecture room and laboratory work. Each student has his own desk with drawers and locker. All supplies are procured from the chemical store room, which has always on hand a complete stock of all necessary materials.

CIVIL ENGINEERING

For drafting, three spacious and well-lighted drawing rooms are provided in Brown Hall. In each room is a collection of working drawings, prints, maps, etc. A large blue-print room is equipped with electrical blue-print apparatus, in addition to the ordinary sunlight frames. For field work the instruments are one high-grade transit, ten other transits fitted for various kinds of surveying, six leveling instruments, solar compass, two solar attachments, two

high-grade aneroid barometers, two drainage levels, surveying camera, rods, chains, tapes, hand-levels, etc. Two current meters with accessories, and a rating course 175 feet long in the rear of the building furnish facilities for carrying on hydrographic work.

The cement-testing laboratory contains a Fairbanks testing machine, briquette moulds, sieves, apparatus for making hot test, etc., and machine for testing plain and reinforced concrete beams. The department also owns a complete outfit for carrying on the work of summer surveying in camp.

CERAMIC ENGINEERING

This department is located in the School of Mines Building. The facilities of the department comprise a convenient chemical laboratory for analysis and decomposition of silicates, a complete mechanical outfit for the preparation of clays for pottery manufacture and the production of the ware itself, of any grade, from earthen wares to porcelain; machinery for grinding, tempering, washing, filtering, and molding; a plant for the manufacture of brick, tiles, pipes, and hollow goods, a kiln house, equipped with a kiln in which several hundred bricks, or an equivalent quantity of sewer pipe, stoneware or pottery can be burned; a crucible melting furnace and a muffle furnace for testing glazes; a muffle kiln of large size for burning pottery, glazed ware and decorated wares; a ceramic museum, containing a fine collection of American pottery and clay products of every class; a library of the best literature on the subject, mainly German, but containing a few English and French works, and the trade periodicals; an improved dry-ball mill, of chilled iron, for grinding the raw material together, and for grinding the cement clinker; a small cupola using air blast, for the vitrification of refractory silicates; a flat-hearth furnace lined with magnesite and fired with oil and compressed air, for burning cement; a cement-testing laboratory.

DAIRYING

The dairy laboratories located in Townshend Hall permit of work along the following lines: Milk Testing, Buttermaking, Cheesemaking, Bottling of Sanitary Milk, and Dairy Mechanics. Individual milk-testing apparatus is furnished, and in the laboratory are found the necessary Babcock testers, balances, etc. The creamery laboratory is equipped with various styles of cream separators, cream vats, and churns. The cheese laboratory, in addition to the necessary vats and other equipment, has a cold curing room and a cellar for curing brick and Swiss cheese. The sanitary

milk room is a model, containing a complete "Star" outfit, which includes a steam pressure sterilizing chest. A fine refrigerator is provided for the bottled milk, and the whole is placed on a practical basis of operation, the milk from the University herd being standardized on a fat basis, bottled, and sold by students. The dairy mechanics work is provided for in a power-house with equipment of boiler, engine, mechanical refrigerating plant, pump, and pipe-fitting apparatus.

DOMESTIC SCIENCE

The department is provided with a large kitchen, with dining-room adjoining, each fitted with the latest and best appliances.

ECONOMICS AND SOCIOLOGY

The equipment comprises a large collection of railroad, municipal and school bonds; of stocks of all kind; of letters of credit, drafts, foreign bills of exchange, bills of lading, checks, enclosures, statements, insurance policies, trust certificates, notes, mortgages, and all the necessary forms of business paper; also collections of coins illustrative of various periods in our monetary history, foreign coins, and scrip; also sets of maps and charts and a Kiepert-Commercial Globe 80 cent. in diameter. Ample facilities for statistical work are provided and a seminary room set apart for the use of laboratory material, documents, etc., is always open to advanced students.

ELECTRICAL ENGINEERING

The dynamo equipment consists of twenty-three machines of various makes and sizes from 40-H. P. down, aggregating over 250 horse-power. These include 110 and 500-volt direct and alternating current generators, railway and stationary motors, polyphase motors, three rotary converters specially designed for experimental work, and a unipolar dynamo. There are also a number of transformers of different makes, including one for welding, one for very high voltage, and six of special design for testing; arc lamps of different styles, a storage battery, condensers, resistances, circuit breakers and apparatus for magnetic testing, illumination testing and photometric work. The measuring instruments include a standard Weston voltmeter with standard resistances and cells, besides over thirty-five other voltmeters and ammeters, mostly Weston's, and three wattmeters. There is a telephone laboratory with apparatus for comparative tests, a variety of transmitters and eceivers, and material illustrative of switch-board practise. Power
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for running the dynamo laboratory is supplied from the University Power Plant by five induction motors and two synchronous motors or converters. There is also a well-selected and growing collection of photographs, blue-prints, and material illustrative of electrical manufacture. The library is especially valuable on account of the completeness of its sets of periodicals and transactions. The University Power Plant is of great value as illustrative of a model installation.

ENGINEERING DRAWING

For Mechanical Drawing there are four large well-lighted drafting rooms with necessary tables and lockers and two lecture rooms equipped with electric projection lantern. A set of Schroeder models and a collection of shop drawings are available. There are two blue-print rooms, one provided with an Elliott electric light printing machine, the other with sun frames.

GEOLOGY

By act of the legislature the University has been put in possession of all the collections made by the late Geological Survey, and these collections have been supplemented by valuable additions of fossils and minerals from various sources. The State collection embraces a very complete representation of every geological formation shown in Ohio. There are exceptionally good opportunities for work in the lithological, petrographical, and modeling laboratories.

HORTICULTURE AND FORESTRY

Among the facilities provided for the illustration of the courses in horticulture, and for practical training in the same, are: a collection of horticultural tools for budding, grafting, pruning, etc.; an orchard, containing well-selected varieties of the apple, pear, cherry, plum, and quince; a small vineyard, containing all the best varieties of the grape; a garden of small fruits, containing all the best varieties of the strawberry, raspberry, blackberry, currant, and gooseberry; a vegetable garden with forcing houses, cold frames, experimental plats, conveniences for irrigation, etc.; small nursery and forest tree plantations, with practise rows for budding, grafting, pruning, and training; ornamental grounds and woodland, planted with a large variety of evergreen and deciduous trees and shrubs; a greenhouse with a fair collection of native and exotic plants; a collection of preserved natural specimens and models of fruits, seeds, woods, etc.; a laboratory fairly well equipped with balances, charts, and other appliances for study and research.

INDUSTRIAL ARTS

The shops occupy the north wing of Hayes Hall and afford excellent facilities for instruction in both the practical details and the underlying principles of carpentry, pattern-making, forging, moulding, foundry work, and machine work. The carpenter and pattern shop is equipped with twenty-five benches with complete sets of carpenter tools for each, and a large number of special tools for general use, twenty-three pattern-maker's turning lathes, with cupboards containing the necessary turning and pattern-making tools under each, an eight-foot pattern-maker's lathe with compound rest, a pony planer, a buzz planer, a circular, rip, and cross-cut saw, a scroll saw, a 36-inch band saw, a trimmer, and a power grindstone. The forge shop is equipped with twenty stationary forges with anvils and tools for each, a heating forge, a portable hand forge, a foot-power hammer, a blacksmith's drill and a punch, shear, and bar cutter. The blast for the forges is furnished through underground piping by a 45-inch Buffalo pressure blower, and the smoke is removed by a 55-inch Buffalo exhaust fan, overhead. Both of these fans are driven by a 15-horse power electric motor. The foundry is equipped with a 24-inch Colliau cupola, the blast for which is furnished by a 30-inch Buffalo blower; two brass furnaces, one 16 inches in diameter and the other 20 inches in diameter; a core oven, benches for iron and brass moulding, core-making and cleaning of castings, a space for floor moulding 30 feet by 40 feet, besides all the necessary moulding tools, flasks, crucibles, ladles, tongs, etc. The machine shop is driven by a 30-horse power electric motor from above, and is equipped with the following tools: twenty-eight benches for vise work, with complete set of tools; eight speed lathes, sixteen engine lathes, a Fox monitor turret lathe, two planers, two shapers, two milling machines, two upright drills, a sensitive drill, grinding machines for both plane and cylindrical surfaces, tool grinders, emery wheels, etc. This machinery is furnished with all the necessary tools, and the tool room is equipped with full sets of drills, taps, milling cutters, standard plugs, gauges, threads, micrometers, and a great variety of special tools.

MECHANICAL ENGINEERING

The technical museum contains samples of engineering supplies and materials and a collection of models of mechanism and valve gears. The laboratories are arranged to carry on experiments and investigations along the following general lines: strength

of materials in compression, tension, torsion, and cross breaking; gas, hot air, and steam engines, under varied conditions of running; hydraulics, including pumps and water-wheels; pneumatics, including air-brakes, compressors, fans, and ventilating systems; power transmission, including belts, pulleys, and lubricants; boiler testing; calibration of instruments.

Some of the principal machines for the above work are Olsen and Riehle testing machines; four gas and oil engines; Ericsson and Rider hot-air engines: three 35-horse power horizontal and one vertical, simple and compound, steam engines with condensers; simple, compound, triplex, centrifugal, and rotary pumps, pulsometer, turbine and impulse wheels, tanks, weirs, meters, hydraulic engines, and rams; set of Westinghouse air-brake apparatus, air-compressors, compressed-air engine, blower and ventilating fans; belt machines, lubricant, and oil testers; Robinson experiment steam boiler, with natural, forced and induced drafts, air-preheater, and economizer; calorimeters, injectors, gauges. The University power and refrigerating plants and the mechanical equipments in the different buildings upon the grounds add to the facilities for engineering tests.

METALLURGY

The metallurgical laboratory is located in the School of Mines Building, and has all the appliances for the most modern methods of technical analysis as practiced in iron and steel laboratories, including gas analysis. A large room in the basement is fitted for gold and silver assaying, with improved muffle and melting furnaces, sampling apparatus and assay balances. The lecture room in metallurgy has a projection lantern with a large collection of views of machines, mines, and furnaces. There is a photographic room with blue-printing facilities, where students learn to make copies of drawings used in illustrating the lectures. A collection of minerals and rocks, with a large set of rock sections, is provided for illustrating the mineralogy, as well as sets of blow-pipe apparatus for the student in determinative mineralogy.

MINE ENGINEERING

This department, located in the School of Mines Building, is equipped with the latest improved instruments and apparatus used in mine engineering, surveying, and the study of mine ventilation. There is a collection of models of mine machinery and supplies, to which additions are being made, which are valuable as

illustrations. The drafting room is large, well lighted and provided with a desk for each student, where he is personally taught the making of maps, the platting of actual surface and underground surveys, the making of drawings, tracings and blue-prints. He is also taught proper methods of keeping notes and all records necessary to an efficient engineer's office. The students are given practical experience by making actual surveys of coal mines and in working up their notes complete in all of the necessary details. The students are also taught how to make working drawings, plans, estimates, and specifications of mining operations and equipment. There is a large collection of views of machines, mines, and mine equipment for use in the projection lantern in the lecture room. A photographic room with blue-printing facilities is used by the students in making copies of their own drawings and those illustrating the lectures.

PHARMACY

This department is located in the Chemical Building. It has a large general laboratory, a smaller laboratory for advanced students, a dispensing room, reading room, lecture room, private laboratory and the office of the Dean and the Secretary of the College of Pharmacy. Each desk of the laboratories is equipped with a very complete set of apparatus for individual use and special appliances are provided for general use. The laboratory is provided with hoods, drying closets, steam pans, distilling apparatus, percolating racks, mills—everything necessary to conduct the ordinary operations of pharmacy. The dispensing room is a completely equipped and well-stocked drug store. The prescription desks permit several students to work at one time and a full complement of apparatus for the work of the dispensing counter is provided. The prescription files are complete and cover the range of prescription practise. In the reading room are kept books of reference belonging to the department, other books from the general library for use during special investigation, and the pharmaceutical journals. The lecture room is well supplied with apparatus and appliances for illustration and experiment. About the walls are arranged cases in which are kept sets of specimens illustrating processes of manufacture, specimens of rare, costly, and curious drugs, and of official preparations. Here also is a complete set of specimens of original crude drugs, arranged by number only, for practise in the "recognition of drugs."

PHYSICS

Among the recent additions to the equipment in this department are a Kohl apparatus for measuring the mutual gravitation of two metal masses, mercury vapor lamps, Junker calorimeter, Zeiss comparator and a remarkable collection of tubes illustrating phosphorescence in high vacua.

As a suggestion of the extent and variety of the equipment, the following pieces may be mentioned: 2 chronometers, chronograph, Hipp chronoscope, 3 stop watches, dividing engine, 3 cathetometers, 2 comparators, Regnault apparatus for vapor tension, expansion of gases, and for specific heat, Melloni-Tyndall apparatus for radiant heat, 4 large Rowland gratings and numerous small gratings and replicas, 6 fine spectrometers by Geneva Society and Browning and several other makes, Michelson interferometer, half-shade polariscope, Kohlrausch total-reflectometer, Sallcron complete apparatus for projecting polarization phenomena, 3 arc-light projection lanterns, a large collection of Konig sound apparatus, 8 Kelvin galvanometers, 13 high-grade and 28 simplex D'Arsonval galvanometers, 12 high-grade and 16 ordinary box Wheatstone bridges, 16 high-grade and 20 ordinary resistance boxes, numerous standards of resistance, capacity E. M. F. and inductance, 10 or more capillary electrometers, 14 Weston voltmeters, ammeters and wattmeters, with 8 of other make, 3 high-grade potentiometers, photometric standards and photometers, Duddell oscillograph apparatus of Hertz, Lecher, Righi, Klemencic for electrical oscillations, X-ray, and wireless telegraphy outfits.

Under the laws of Ohio, the Professor of Physics is ex-officio State Sealer of Weights and Measures and all of the standard weights, measures, and balances received from the United States government are in the Physics building.

PHYSIOLOGY (See Anatomy and Physiology)

PSYCHOLOGY

The psychological laboratory occupies three rooms on the fourth floor of University Hall, and is reasonably well equipped for work in physiological and experimental psychology and for research in related educational lines. For the study of motor processes and development the most improved form of ergograph with complete sets of myographic, chronographic, dynamometric and pneumatic recording appliances, has been provided. A complete outfit of apparatus for the study of sensation, memory, and associa-

tion makes it possible for students of education to acquire methods of exact observation of the various mental and motor processes involved in school work. Provision has been made also for work in comparative psychology.

RURAL ECONOMICS

The facilities offered for the study of Farm Management include the University farm, containing over four hundred acres, and the records that have been kept of its operations for many years. Adjoining Columbus, and within reach by electric cars, there are many well-equipped and well-managed farms, which are frequently visited by classes in this department.

VETERINARY MEDICINE

The Veterinary Hospital affords excellent facilities for the treatment and care of animal patients, and also gives the students the opportunities to become practically familiar with the diseases to which our domesticated animals are subject. It contains box stalls, stall for cold-water applications, a large and well-lighted operating hall, and a special ward for dogs. The front part of the Hospital contains a lecture room and a drug dispensary. In the Veterinary Laboratory building the operating room is 65 x 40 feet. The laboratory of Pharmacology accommodates 75 students working at one time. The dissecting laboratory affords facilities for 120 students working at one time. The laboratory of pathological histology is equipped with the latest pattern compound microscopes, one for each student, adequate lockers and desks. The Pharmaceutical laboratory contains desk room for 75 students and all the necessary equipment for carrying on any of the operations coming under the head of Pharmacy, including drug mills, distilling apparatus, percolators, steam evaporators, and specimens of all the common organic and inorganic drugs, etc. The ampitheater is provided with a darkening mechanism and a modern electric projection lantern.

ZOOLOGY AND ENTOMOLOGY

At Columbus

The adjacent fields, wood, lake and river, the various well-equipped laboratories, extensive collections and libraries, furnish excellent opportunities for every phase of the study. The department occupies the first and third floors of Biological Hall, providing two lecture rooms, one general and five special laboratories, museums and rooms for storage, workshops, aquaria, cold-storage, pho-

tography, etc. The laboratory equipment includes microscopes, microtomes, incubators, injectors, etc., for most approved methods of work in morphology, embryology, and neurology. The collections include a fine series of skeletons, a number of large mammals, series of the birds of Ohio, of the birds of North America, of Ohio fishes, of mollusks, and an especially rich collection of insects particularly in Odonata, Hemiptera, and Diptera.

At the Lake Laboratory

The Lake Laboratory at Sandusky is designed to provide opportunity for investigation of the biology of the lake region, and for giving certain courses of instruction in Botany, Zoology, and Entomology. A commodious laboratory building, capable of accommodating at least one hundred students and investigators, is provided, with tables, dark rooms, aquaria, water, and gas. Microscopes and other apparatus are supplied from the University. Boats, collecting apparatus, dredges, seines, etc., are supplied, and special attention is given to methods of collecting and to field work.

MUSEUMS AND LIBRARIES

MUSEUMS

AGRICULTURAL MUSEUM, TOWNSHEND HALL

The Agricultural Museum contains Auzoux models, samples of tools and a considerable miscellaneous collection, consisting of machinery, models, products, charts, pictures and lantern slides showing results of experiments, representative and noted specimens of live stock, farm machinery, fences, buildings, etc.

ARCHAELOGICAL AND HISTORICAL MUSEUMS, PAGE HALL

WILLIAM C. MILLS, *Curator*

The Archæological Museum, owned jointly by the Ohio State University and the Ohio State Archæological and Historical Society, is located in Page Hall, where more than 10,000 square feet of floor space is used in displaying the largest collection of archæological specimens in Ohio. The chief exhibits, illustrating the life of prehistoric man in Ohio, are from the Baum Village Site, Gartner Mound and Village Site, Adena Mound, Harness Mound, Ft. Ancient, the lower Scioto and Muskingum Valleys, all of which are more or less familiar to the residents of Ohio through the published reports of the explorations by the Society.

During 1904 more than 10,000 specimens belonging to the Ohio State Archæological and Historical Society were placed on exhibition at the World's Fair, St. Louis, and received the Grand Prize. This collection has been replaced in the main exhibition room on the second floor.

The Historical Museum occupies two large exhibition rooms on the first floor, and comprises many specimens of interest to Ohio people, such as the first printing press in Franklin County, used in printing the first issues of the *Ohio State Journal;* original model of John Fitch's first steam engine; the Spanish flag that floated over Manila at the time of the surrender; the first mill-stones used in grinding corn at Fort Harmar, 1788; photographs, models, and paintings illustrating the early settlements in Ohio.

BOTANICAL MUSEUM, BOTANICAL HALL

The Botanical Museum contains the general University herbariums, and the State herbarium, over 30,000 mounted sheets, also Professor Kellerman's private herbarium of over 20,000 specimens deposited for use in the Botanical department; a complete collection of the native woods of Ohio; a collection of the seeds and fruits of plants; a collection of native medicinal plants; a general collection of vegetable products, including seeds, textile fabrics, coloring substances, etc., illustrating economic or applied botany.

CERAMIC MUSEUM, SCHOOL OF MINES BUILDING

The Museum of Ceramics shows specimens of ceramic products in great number.

GEOLOGICAL MUSEUM, ORTON HALL

PROFESSOR J. A. BOWNOCKER, *Curator*

The Geological Museum of the University includes the following named series: (a) An excellent representation of the leading divisions of the geological scale of the State, so far as it can be illustrated by rock specimens. The specimens represent the leading phases of formation, and in many cases carry the characteristic fossils of the horizons from which they are derived. (b) A collection of the animal and vegetable fossils of the rocks of Ohio. This series includes a large majority of the described fossils of our formation, and in the number are many type specimens. While all the ages of our geological history are well represented, the collection of the Upper Silurian and Devonian animal fossils is particularly rich and complete. A remarkably fine series of coal plants is also included in the museum. The list of fossils has been greatly extended in the number of species and individuals by the recent purchase of the collection of Mr. Henry Moores of Columbus. (c) The economic minerals of the State are also shown to excellent advantage in the museum. The coals, petroleums, iron ores, clay and building stones produced in Ohio are represented in large collections. Many of the specimens upon which chemical examinations or physical tests have been based in the work of the geological survey of the State

are included here. (d) Petrographical collections: These collections were selected with a view to their use in petrographical instruction, and embrace the Hawes collection, the Krantz collection and the Rosenbusch complete series of typical rock specimens from important centers abroad. These hand specimens are supplemented by two series of thin sections, including Voight and Hochgesang's collections of typical rocks and of the petrographically important minerals. (e) In addition to the collections above described the museum contains a great deal of valuable material in the line of general geology and mineralogy. Among other things it includes several valuable suits of ores and many fine mineral specimens. (f) There also belong to the museum a number of geological casts, models and maps. In this series are included a relief map of the State of Ohio, and also the models of the basins of the Atlantic Ocean and Caribbean Sea, prepared under the supervision of the United States Coast and Geodetic Survey. (g) The catalogue of the museum contains more than 11,000 entries; but as only one number is as a rule given to a fossil or a mineral species, the individual specimens make an aggregate list of many thousands in addition to the catalogue list, and probably double this list. (h) The skeleton of a mastodon, one of the extinct elephants of Ohio, has been presented to the museum by N. S. Conway, of Catawba, O., on whose farm it was found. It has been mounted by Professor H. A. Ward, of Rochester, N. Y., and is one of the largest in the country. (i) The museum also has a mounted skeleton of Megalonyx Jeffersonii, one of the great ground sloths. This specimen has the distinction of being the first and thus far the only mounted skeleton of this animal in the world. The bones were discovered by Abraham Drushell and others in a swamp in Berlin Township, in Holmes County, Ohio, in 1890. They were mounted in Ward's Natural Science Establishment, Rochester, N. Y. The entire outlay involved in the purchase of the bones and in mounting them was borne by Mr. Emerson McMillin, of New York.

VETERINARY MUSEUM, VETERINARY LABORATORY

In the Veterinary Museum are skeletons of horse and ox, models of the various anatomical parts, and many pathological specimens preserved in alcohol.

ZOOLOGICAL MUSEUM, BIOLOGICAL HALL

The foundations of a zoological museum have been laid and the work begun on a generous plan. Every effort is being made to secure and preserve excellent specimens in all groups of animals. Not only the adult animals are preserved, but the preparatory stages as well, their work and architecture, in fact all that can illustrate the life-history and habits. Among special features are the Wheaton collection of birds of Ohio, numbering about 1,000 skins; a collection of North American birds, about 1,500 skins, representing very fully the North American fauna; the Hayden collection of birds and nests, a number of fine specimens of larger animals, moose, hippopotamus, deer, tiger, peccary, lion, tapir, etc., most of which have been generously donated by Sells Brothers; a collection of about 3,500 molluscan shells; a fine series of Ohio fishes; numerous reptiles, amphibians, etc. There is an excellent series of skeletons, crania, and alcoholic material for courses in comparative anatomy. The collection of insects is being rapidly enlarged and the purchase of the Kellicott collection of Odonata makes it especially rich in that order. Professor Osborn's private collection of Hemiptera is deposited in the department and available to students for comparison and study.

LIBRARIES

THE UNIVERSITY LIBRARY

The University Library consists of the General Library the Law Library, and a number of Department Libraries. The total number of bound volumes is 75,000.

The General Library, temporarily located in Orton Hall, contains the main body of the books in all classes of literature. A special feature is the unusually large collection of Government Documents. The Law Library, in Page Hall, contains 3,500 volumes consisting of the greater number of State Reports, some English Reports, and a good collection of text-books. It is especially well equipped for the study of Ohio Law. The Department Libraries are in the rooms of the various departments. The departments having the largest Libraries are Economics, Civil Engineering, Animal

Husbandry, and Zoology. The Animal Husbandry Library contains a collection of herd books which is probably one of the most complete in the country. In the Economics Library is to be found the private library of the late Porfessor Clark. In addition it receives over thirty financial and commercial trade journals. The Zoology and Entomology Library has as its nucleus the scientific library of the late Professor Kellicott; and the Civil Engineering Library contains the library of the late Professor Brown.

During term time the General Library and the Law Library are open six days in the week, legal holidays being excepted. From Monday until Friday the hours are from 7:30 A. M. to 9:30 P. M. in the General Library, and from 7:30 A. M. to 6 P. M. and from 7 to 9:30 P. M. in the Law Library. The Saturday hours for both Libraries are from 7:30 A. M. to 4 P. M., and both Libraries are closed during the Convocation hour on Wednesdays. The Department Libraries are open for the use of students at such times as the professors decide.

ARCHAEOLOGICAL AND HISTORICAL SOCIETY'S LIBRARY

The library of the society is situated on the second floor of Page Hall, and is composed chiefly of complete sets of the publications of historical societies of the United States, scientific societies, publications of museums, academies, colleges, universities and libraries, and many rare and valuable books upon the American Indian and the early history of Ohio.

This library is free to all students of the University, as a reference library, from 9 A. M. to 4 P. M.

STATE LIBRARIES

The Ohio State Library numbers about 112,000 volumes and occupies a room in the State House.

The State Law Library, of over 26,000 volumes, contains complete sets of the English, Scotch, Irish, Canadian, United States, and State reports, statutes and digests. The important legal periodicals are on file.

CITY LIBRARIES

The City Library numbers 55,000 volumes. The Public School Library numbers 35,000 volumes.

GENERAL INFORMATION

CHRISTIAN ASSOCIATIONS

The Young Men's Christian Association has come to occupy a prominent place in university life. It has a membership of about four hundred men, and is affiliated with the World's Student Christian Federation. The Association House furnishes free for the use of its members a reading room, library, magazines and papers, piano, and telephone—a college home.

Religious meetings are held for men on Sunday afternoon; there are also frequent meetings for the promotion of social intercourse and good fellowship. Courses in systematic Bible study and in modern missions are offered. A most helpful feature of the work is that in the interest of new students at the opening of the school year. Desirable rooms and boarding places are found and posted for reference at the Association House. Representatives of the Association meet the trains, assist students in finding satisfactory locations, and endeavor in every way to make them feel at home. The Employment Bureau helps to find work.

A copy of the Students' Handbook, giving information about Columbus, the University, and the various college organizations and activities, will be sent free to prospective students. For this handbook or for further information, address the General Secretary of O. S. U. Y. M. C. A., 239 West Tenth Avenue, Columbus, Ohio.

The Young Women's Christian Association holds religious meetings regularly at noon on Tuesdays. This organization is active and efficient in working for the highest interests of the young women. Young women planning to enter the University are invited to correspond with reference to board or rooms with the General Secretary, O. S. U. Y. W. C. A., University Hall, Columbus, Ohio.

THE UNIVERSITY CONVOCATION

An entire hour, from ten to eleven on Wednesday of each week, is devoted to a convocation of students and faculty, at which the President presides. In addition to devotional exercises an address is delivered upon some suitable topic. During this hour the libraries and laboratories are closed and no other university exercises occur. The public is always welcome at the Convocation.

LITERARY, SCIENTIFIC, AND OTHER SOCIETIES

The University has about seventy literary, debating, scientific, technical, political, philanthropic, philosophic, art, musical, and language clubs, or societies, as well as athletic and Greek letter organizations. Most of these clubs and societies include in their membership both students and members of the faculty. Some of the more prominent are the Phi Beta Kappa Society, the Society of Sigma Psi, the Alcyone Literary Society, the Athenæum Literary Society, the Browning Literary Society, the Philomathean Literary Society, the Townshend Literary Society, the William F. Hunter Law Society, the English Club, Der Deutsche-Verein, the Cercle Dramatique, the Cosmopolitan Club, the Political Science Club, the Philosophical Society, the Biological Club, the Chemical Association, the Organic Evolution Club, the Ornithological Club, the Pharmaceutical Society, the Engineering Society, the Electrical Engineers' Club, the Mechanical Engineers' Society, the Ceramics Society, the Horticultural Society, the Men's Glee Club, the Girls' Glee Club, the Strollers (dramatic), the Mandolin and Guitar Club, the Male Quartette, the Cadet Band, the Sketch Club, the McKinley Club, the Thurman Club, the Prohibition Club.

MILITARY SCIENCE AND TACTICS

Under the law of Congress establishing the University, it is required that instruction shall be given in military science and tactics. In accordance with this provision an officer of the regular army has been detailed to take charge of the department of Military Science and Tactics; and the Trustees have directed that all male students, except those

in the College of Law and such others as may be especially excused, shall render two years of cadet service. A uniform has been prescribed with which each member is required to provide himself; and fifty minutes a day are devoted to drill, except on those days when instruction in tactics and art of war is given.

The course of instruction is both practical and theoretical. It is given by means of systematic drill, supplemented by lectures and recitations, and is so arranged as to occupy three hours per week throughout the year. For purposes of drill, all students enrolled in the department are organized into a regiment, the officers of which are selected from those students who have shown special proficiency in their university work and the work of the department. Commissioned officers and non-commissioned officers receive certificates of satisfactory service, issued by the University. A cadet band has been organized in connection with this department. A thorough course in gallery shooting has been established, the arms and ammunition being the same as adopted by the State of Ohio for use of the National Guard. The theoretical instruction includes a systematic and progressive course in drill regulations of the U. S. Army, the organization and administration of the U. S. Army, and the elementary principles governing in the art of war.

Competitive drills are held yearly for two medals; one, the first prize, of gold, presented to the University by the M. C. Lilley Company, the other, the second prize, of silver, presented by Lieut. Wilson, when commandant. These medals remain the property of the University, the winner wearing them until the next competition. The "President's Prize" consists of an officer's sword, given to the captain of the company having the best record for attendance for the year. The Class of 1886 presented a sword to be competed for by all companies—sword to remain the property of the University—and worn for one year by the captain whose company is adjudged best; bronze medals struck from a die presented to the University by Professor Edward Orton, Jr., in 1906, are presented to each member of the company winning this sword.

The equipment of the department consists of 750 U. S. magazine rifles and sets of infantry equipment, 34 officers'

swords and belts, and a few instruments for the band. The U. S. Ordinance Department furnishes an annual allowance of one thousand rounds of ball and one thousand rounds of blank cartridges for cadet rifles.

PHYSICAL EDUCATION

Physical Education is conducted under the direct supervision of the Director, who is a graduate physician and a member of the University Faculty. He is assisted by an associate director for women, also an assistant and twenty student aids, who are selected each year from the upper classmen and those who show proficiency in their work. The main floor of the gymnasium (80 by 150 ft.) is thoroughly equipped with the most modern gymnastic apparatus. It is used by the women in the forenoon while the men exercise in the new gymnasium on the first floor. In the afternoon the main floor is used exclusively by the men for class work, athletics, basket ball, recreative games, etc. Regular class exercise two hours per week is required during the first year of a student's residence at the University or until he has successfully completed three terms of this work. A thorough physical examination is made of each student at the opening of the college year. Physical defects, abnormalities and weaknesses are noted and judicious, healthful exercise is prescribed to fit the student's individual needs.

THESIS

As a requisite for graduation, each candidate in the colleges of Engineering and Pharmacy, must present an acceptable thesis, embodying the results of a special study. The subject of this study must lie within the field of the degree sought. The subject must be filed with the President of the University (dependent upon the approval of the head of the department), on the official blank provided for the purpose, not later than December 15 of the University year in which the degree is sought. The completed thesis must be submitted to the head of the department concerned not later than the second Saturday before Commencement Day.

The accepted thesis, on standard paper, Buckeye Bond, 8½ x 11 inches, medium weight, typewritten or printed,

neatly bound in black cloth, gilt-lettered on first cover with the thesis title, name of author, degree sought, and year of graduation, must be filed not later than the Friday preceding Commencement Day.

OHIO FORESTRY BUREAU

This Bureau has been established and located at the University by the Legislature for the purpose of inquiring into the best means of preserving and utilizing the forests of the State.

PRIZES

Through the generosity of Hon. William J. Bryan an annual prize of fifteen dollars is offered for the best essay on the principles underlying the form of government of the United States. Competition for this prize is open to all students of the University. For further information, make inquiry of the head of the department of American History and Political Science.

The Edward Thompson Company offers annually to the student writing the best essay on a legal theme selected by the faculty of the College of Law, the second edition of the American and English Encyclopedia of Law, complete in thirty-two volumes.

THE STATE UNIVERSITIES' DEBATING LEAGUE

In 1905 by agreement between representatives of the University of Illinois, Indiana University, and Ohio State University the State Universities' Debating League was organized. Under the agreement a public debate is held each year between students of each two of the Universities. The debaters to represent Ohio State University are chosen each year by competitive tests, and any student of the University is eligible to compete.

FELLOWSHIPS

UNIVERSITY FELLOWSHIPS

To encourage graduates of this University, and of other similar and approved institutions in this State, to continue their studies and to undertake advanced work leading to the higher degrees, the University has estab-

lished fellowships in several departments. These demand about one-half of the time of the fellow for laboratory or other similar assistance—as far as possible along the line of his graduate study. The remainder of his time is given to graduate work. The fellowships pay from $150 to $300 for the University year. A list of students holding fellowships during the present academic year is given on page 39.

THE ROBINSON FELLOWSHIP IN ENGINEERING

This fellowship was endowed by Emeritus Professor Stillman W. Robinson for the encouragement of graduate research work in engineering, provides three hundred dollars annually, and is open to graduates in Mechanical, Civil, and Electrical Engineering. Any student to whom this fellowship is awarded must devote his entire time to the work, which shall amount to at least sixteen hours per week, of which at least eight shall be in the line of original research or investigation. This fellowship will be awarded on the Friday preceding Commencement Day. All applications must be filed with the committee on or before the first of June of the same year, and must include a general outline of the course of study and research proposed. This must show a definite object to be attained. The application may be for one or two years, preference being given to candidates electing the two-year course.

HIGH SCHOOL COMMITTEE

In order to serve the schools of the state the Faculty has provided a committee, one of the duties of which is to assist graduates of the University to teaching positions for which they are best fitted. Any student of the University intending to teach is invited to enroll his name with the committee on a blank provided for that purpose. Blanks may be obtained from the Executive Office. Graduates of the University who are already engaged in teaching are also cordially invited to correspond with the appointment committee with a view to bettering their positions. Correspondence is invited from Boards of Education and from Superintendents and Principals of schools in need of teachers. No fee is charged for the services of the committee. The secretary of the committee is Professor J. E. Hagerty, to whom all correspondence should be addressed.

FEES AND EXPENSES

GENERAL CHARGES

All term dues must be paid at the opening of each term as a condition of admission to classes.

Incidental Fee.—A charge of six dollars a term, eighteen dollars a year, is made against all students, under the head of incidental expense. In the case of former students if this fee is not paid until the second day of the term one dollar will be added, and for each succeeding day of delinquency fifty cents will be added.

Tuition.—Tuition is free for all students except in the College of Law. The fees of the College of Law are $30 per semester, including the incidental fee.

RETURN OF FEES

The rules of the Trustees provide for the return of fees only in cases of prolonged illness or of unforeseen calamity.

LABORATORY FEES

Students in all laboratory courses (*i. e.*, all courses not exclusively lectures and recitations), are required to pay a flat fee of one dollar per term for each laboratory course taken. The sums thus derived are to cover in part the loss and deterioration of the expensive instruments used by them. In addition, each department assesses upon the students of each laboratory course the cost of the supplies and materials consumed by them. These fees vary considerably in different departments, and they are collected in the form of cash advances when the student enters, the unexpended balance being returned to him at the end of the term.

In those departments in which the laboratory work is chemical, the student buys a card for five dollars at the beginning of the course, and from that card is supplied with chemicals and apparatus as he needs them, the value of each purchase being punched out of the card at the time. When the card is exhausted, another must be purchased. All first year students in elementary chemistry (Chem. 3, 7, 12) will be required to buy a $10.00 card. This will

cover the expense for the year with reasonable care in the use of supplies. The store room redeems all unused cards at face value.

LOCKER FEE

A fee of one dollar a term is required from those who make use of a locker in the gymnasium.

CADET UNIFORM

The uniform with which the members of the regiment are required to provide themselves costs (without overcoat) about fourteen dollars. It is designed to be worn in place of civilian dress.

FEES OF GRADUATE STUDENTS, FELLOWS, AND ASSISTANTS

Graduate students with the exception of Fellows are subject to the same requirements in the way of fees as undergraduates. Fellows are not required to pay the incidental fee or the fixed laboratory fees. Assistants, whether graduate or undergraduate students, are required to pay both the incidental and the fixed laboratory fees.

GRADUATION FEE

A fee of five dollars, to cover expense of graduation and diploma, is required of each person receiving one of the ordinary degrees from the University, and this fee must be paid before the degree is conferred. A like fee of ten dollars is charged to each person receiving one of the higher graduate degrees.

FEES FOR THE COLLEGE OF LAW

Incidental Fee.—An incidental fee of fifteen dollars per year is charged to regular undergraduate students.

Tuition Fee.—In addition to the incidental fee named above, a tuition fee of twenty-two dollars and fifty cents per semester is charged to regular undergraduate students. Students of other colleges of the University who elect courses in law are charged a fee of seven dollars and fifty cents for a course of five hours each semester; for a course of more than five hours, the regular tuition fee of twenty-two dollars and fifty cents each semester is charged.

Diploma Fee.—A fee of five dollars is charged to all who receive the diploma or certificate. This fee must be paid before the degree is conferred or certificate delivered.

AUDITOR'S FEE

On presentation to the Bursar of the written consent of the head of a department, and on payment to the Bursar of an auditor's fee of one dollar, any person engaged in teaching is permitted to attend, in that department, any class or course (not to exceed three hours a week for one-half year) which is announced to be especially for teachers or those intending to teach.

ROOMS AND BOARD

Boarding clubs are also formed in the neighborhood of the University. Furnished rooms are rented at one dollar to a dollar and a half a week for each student, and the cost of table board is two dollars and seventy-five cents to three dollars and a half a week.

Board with furnished rooms can be obtained in private families, within convenient distance of the University, at rates varying from three and a half to five dollars per week. The ruling rate may be taken as four dollars.

FREE SCHOLARSHIPS

A free scholarship, good for two years in the College of Agriculture and Domestic Science, is granted to one student annually from each county in Ohio, but not more than two scholarships can be in force at any one time from any county. If in any county there is no applicant for the free scholarship in the College of Agriculture and Domestic Science, then a free scholarship, good for two years, in the College of Veterinary Medicine may be granted.

Each scholarship is valid for two years from its grant, and covers incidental and fixed laboratory fees. In the chemical laboratories a student holding a free scholarship shall be required to pay for materials used and to make a deposit to cover breakage the same as other students. In case of other than new students the scholarship will be accepted only after approval by the Board of Trustees. All scholarships must be presented to the Secretary of the Board of Trustees on or before November 1st of the year in which they are to be used, otherwise they are not valid.

The free scholarship cannot be used in the special winter term courses. The appointments are made by the County Boards of Agriculture, and are not transferable by the appointees. To learn whether the scholarship of a given

county for the current year has been granted, inquiry should be addressed to the Secretary or President of the County Agricultural Society. For further information concerning these scholarships, inquiries should be addressed to the Dean of the College of Agriculture.

SELF SUPPORT

There is a large amount of work upon the University farm which is assigned to students, preference being given to those who are studying Agriculture. *But the University cannot promise work to all applicants.* Many students find work in private families, in offices, and in various occupations, by means of which they defray a portion of their expenses. A person of ability and energy, who is master of a trade, or who can do good work of any kind, can generally find employment, but prospective students are cautioned against depending wholly upon such uncertain sources of income.

Students should distinctly understand that where they attempt entire or partial self-support they should lengthen the term of study. An employment bureau is maintained at the University where the names of those seeking work and of those desiring workers are recorded. Students should report to the Executive Office from time to time as to their needs and their work. This will enable the authorities to be more helpful than otherwise would be possible.

As an accommodation the executive office co-operates as far as possible in this matter. The Y. M. C. A. offers its services in helping young men to secure employment. Very much depends, however, on the individual's power of initiative. Students should not come to the University expecting others to find places for them.

RULES AND REGULATIONS

REGISTRATION

All students are required to register and pay their term fees on or before the first day of each term, between the hours of 8 A. M. and 12 M., or between 1 and 4 P. M., central standard time.

All students (except those entering for the first time) who fail to register as above will be charged one dollar in addition to the usual incidental fee, for the first day of delinquency, and fifty cents additional for each subsequent day.

No candidate for graduation in a course requiring a thesis, will be permitted to register for the second term of his graduating year, except upon presentation to the bursar, of the President's certificate that his thesis subject has been announced and approved.

ASSIGNMENT OF WORK

The assignment of work shall be made and recorded for each student, as shall be determined by the several faculties; but at the beginning of each term or semester, each student's card shall be signed by the Secretary of his College before presentation to the bursar.

AMOUNT OF WORK

No student is permitted to take less than fifteen credit hours a week of any sort of work, except by special permission, and no student will be permitted to take more than the regular work of the class to which he belongs, who has not passed all his work for the preceding term.

CREDIT HOUR

A credit hour means one hour class room work in lecture, recitation, or quiz, or "two consecutive hours of practical or experimental work in any department shall be regarded as the equivalent of one hour of class room exercise; but when no outside work is required in addition to the laboratory work, then three hours of laboratory work may be required as equivalent to one credit hour; and in general not more than three hours of the student's time, including class hours, shall be required for each credit hour.

ELECTIVE STUDIES

All elections of work in continuous studies, when once made, are understood to be made for the entire collegiate year.

The right is reserved to each instructor to withdraw the offer of any elective study when it is not chosen by at least four persons.

REMOVAL OF ENTRANCE CONDITIONS

Students shall be regarded as strictly on trial until they have removed all deficiencies and conditions in entrance requirements.

Students who have any entrance conditions outstanding at the beginning of the third year of residence at the University will not be allowed to register until such conditions have been removed.

The removal of entrance conditions is administered by the Entrance Board. Conditions may be removed (1) by Examination—for schedule, see pages 91-92; or (2) by the substitution of excess work in other approved subjects; or (3) by the substitution of other equivalent work to be done at the University at such times and in such subjects as the Entrance Board shall direct.

EXAMINATIONS AND STANDING

The standing of undergraduate students in each study shall be reported at the end of each term or semester, as "merit," "passed," "conditioned," or "failed." A final written examination shall be held for all undergraduate students in all courses, except purely laboratory and seminary courses in which a final examination shall be optional with the head of the department.

The standings "merit" and "passed" indicate that the student has full credit for the term's or semester's work in the study in which this standing is obtained.

The report "credit" (K) shall be used only for work not done in regular class at the University.

The standing "conditioned" indicates that credit for the term's or semester's work in the study in which the condition was incurred is withheld. The student shall be given an opportunity to obtain credit by a special re-examination; or if the study be a continuous one, the instructor in charge may, at his discretion, excuse the student from re-examination and may allow him to obtain credit by pursuing the study successfully during the following term or semester. If the student thus excused from re-examination does not pass upon the work of the second term or semester, he shall be reported as "failed" in the work of both terms or semesters. Any condition that is not removed within one year from the beginning of the term or semester in which it was incurred shall lapse into a "failure."

The standing "failed" indicates that the student has obtained no credit whatever for the term's or semester's work in which the mark is given. The student must, at the first opportunity, repeat in class the study in which he has failed. But a student who has failed in an elective study may be excused from repeating such

study by the Executive Committee of his college. In case of failure in any continuous study the work of the term or semester in which the failure is incurred must be repeated in class before any subsequent term's or semester's work in that study can be commenced. Unexcused absence from any regular examination is construed as a failure therein.

Any student, who fails at the end of any term or semester to secure full credit for two-thirds of his work, shall be put on probation for the succeeding two terms or one semester of his residence at the University with restricted work (to be determined by the faculty in each college); and if during this time of probation, he shall incur failures amounting in any one term or semester to more than one-third of his work, or conditions and failures amounting to one-half of his work, or conditions alone amounting to two-thirds of his work, he shall thereby cease to be a member of the University and shall be so notified by the dean of the college in which he is registered and a notice shall be sent to the parent or guardian of the student.

If for any cause the preparation, progress, or success of any student in the work assigned him be found unsatisfactory, the President may remove him from a class or dismiss him from the University.

TERMS AND VACATION

The first term of the University year begins on the Tuesday following the sixteenth day of September and closes on the Wednesday following the 17th day of June. The first term closes on the Wednesday preceding Christmas; the second term begins on the Tuesday following the first day of January and closes on the Friday preceding the first Monday in April, the third term begins on the Wednesday following the close of the second term. But when Christmas falls on Tuesday or Wednesday, the second term shall begin on January 2. The second semester begins on Monday of the eighteenth week preceding commencement week; and the first semester closes on the Friday preceding the opening of the second semester. College work begins in accordance with the program on the second day of each term or semester. The regular college exercises are suspended from 4 o'clock P. M. of the Wednesday preceding Christmas until 8 o'clock A. M. of the Tuesday following the first day of January; on Thanksgiving and the day following; on University day, which is the 22d day of February; from 4 o'clock P. M. of the Friday preceding the first Monday in April until 8 o'clock A. M. of the Wednesday following the first Monday in April; and on

Memorial Day. But when Christmas falls on Tuesday or Wednesday, exercises are suspended from 4 o'clock P. M. of the Wednesday preceding Christmas until 8 o'clock A. M. of January 2.

STUDENT'S LOCAL ADDRESS

Each student shall at the beginning of the year give, in writing, his or her local address to the Registrar, and shall promptly report all subsequent changes of address.

SMOKING PROHIBITED

Smoking is prohibited in the halls, basements, and lecture rooms of the University buildings.

ROOM REGULATIONS

The rooms of University student organizations which are located in the University buildings shall not be used for the purposes other than the usual exercises of such organizations without the previously obtained consent of the University Faculty.

No arrangements or announcements shall be made by students for any public gathering or exercises in the University buildings without the previously obtained consent of the President.

EXCUSES FOR ABSENCE

All absences of individual students from the city, for any purpose, involving absence from college exercises, must be accounted for to the President; and in all possible cases permission must be previously obtained.

Excuses will not be granted for absences of more than two weeks standing, unless the absence has been continuous.

ADMISSION

GENERAL REQUIREMENTS FOR ADMISSION

Applicants for admission to the College of Agriculture and Domestic Science, Arts, Philosophy, and Science, or Pharmacy, must be at least sixteen years of age; for admission to the College of Engineering or Veterinary Medicine, at least seventeen years of age; for admission to the College of Law, at least eighteen years of age. The University is open on equal terms to both sexes.

UNIVERSITY ENTRANCE BOARD

The admission of students is in charge of the University Entrance Board, which determines the credits which shall be issued on all entrance examinations and certificates, and furnishes all desired information to applicants. Correspondence relating to admission should be addressed to the Entrance Board, Ohio State University, Columbus.

ADMISSION TO COURSES LEADING TO DEGREES

There are two modes of admission to the courses of the University leading to degrees: (a) by examination, (b) by certificate.

ADMISSION BY EXAMINATION

The Entrance Board will conduct entrance examinations September 5 to 9, 1908, and June 15 to 19, 1909. A part of the examinations may be taken in June and the remainder in September. All applicants for admission who are not graduates of an accredited or recognized secondary school or approved preparatory school, or who do not possess certificates from the State Board of School Examiners, must take examinations for admission.

SCHEDULE—Examinations will be from 8 to 12 A. M. and from 1 to 5 P. M.

TUESDAY	A. M.	History: Greek and Roman, English, General.
"	P. M.	Composition and Rhetoric, Classics, Chemistry, Geology.
WEDNESDAY	A. M.	Algebra, German, English Grammar, Descriptive Geography.
"	P. M.	Plane Geometry, Physical Geography, Arithmetic.
THURSDAY	A. M.	Civics, Solid Geometry, Zoology.
"	P. M.	Beginning Latin, Caesar, Astronomy, Elements of Agriculture.
FRIDAY	A. M.	Physics, Physiology, Botany.
"	P. M.	U. S. History, French, English Literature.
SATURDAY	A. M.	Virgil, Cicero.

ADMISSION BY CERTIFICATE

Applicants may be admitted without examination on presentation of properly endorsed certificates from such secondary schools as have been accredited* or recognized by the University, or from approved normal schools, or from the State Board of School Examiners under the following provisions:

(a) If from secondary schools, the certificate must show that the applicant is a graduate in good standing of the school issuing it; and also must state in detail the studies pursued, the text-books used, the amount of work done in each study, the amount of time devoted to it, and the fact that the applicant has passed in the work.

(b) Any entrance requirement not covered by a certificate must be met by examination.

Blank certificates may be obtained by addressing the Secretary of the Entrance Board. Certificates should be filled out and returned to the University as early as possible after the close of schools in June. Since errors are frequently made in transcribing the school record on the

*Regarding accredited and recognized schools see page 102 and following.

blank form, the applicant should verify his certificate before presenting it to the Entrance Board.

The foregoing requirements do not apply to the College of Veterinary Medicine, or to such courses as do not lead to a degree; and an applicant who brings a certificate showing that he has completed at least three years' work in an accredited school, may be admitted to the College of Pharmacy without examination in the subjects covered by the certificate.

ADMISSION WITH ADVANCED STANDING

Applicants for admission with advanced standing who do not come from an approved college, will be examined in the studies preparatory to admission to the appropriate college, and in the studies for which they seek advanced credits.

Applicants who have completed at least one year's work in an approved college, and who bring official and explicit certificates describing their courses of study and scholarship, and letters of honorable dismissal, will be admitted to any of the colleges of the University in accordance with either of two plans:

1. The entrance units on which the candidate was admitted to the approved college will be accepted at their face value; deficiencies will be made up from the college credits presented, and advanced credit will be given for any remaining, satisfactory work; or

2. One year's work will be accepted in lieu of entrance units and the candidate will be admitted without examination and without conditions, but without any advanced standing on the year's work.

ADMISSION TO COURSES NOT LEADING TO DEGREES

In the colleges of Agriculture and Domestic Science, Education, Engineering, and Pharmacy, courses covering two years or less are offered. In the colleges of Law and Veterinary Medicine, three-year courses leading to a certificate are offered. For definite statements regarding the requirements for admission to any of these courses, consult the detailed description of the several colleges.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work in the University, and do not intend to become candidates for degrees, will be admitted on the following conditions:

1. The regular entrance requirements must be satisfied.

But applicants who are not less than twenty-one years of age, after obtaining credit for elementary or "grade" work, and for such other subjects as may be necessary to qualify them for the classes that they wish to enter, may, on the presentation of satisfactory reasons, be admitted by the joint action of the Entrance Board and the Executive Committee of the College, to any class in the College; provided, that if any student who has been admitted on these conditions afterwards becomes a candidate for a degree, he shall take the omitted entrance examinations at least one academic year before the degree is conferred.

2. Before entering the college, students desiring to pursue special work are required to lay before the faculty, for approval or modification, a written statement of the end they have in view, the studies proposed for the attainment of that end, and the probable period of attendance. Such students will be held as strictly to their accepted schemes of work as are the regular undergraduates to their courses of study.

3. Permission to enter as special undergraduates will be refused to all who fail to give satisfactory evidence of definiteness of purpose and will be withdrawn whenever the conditions on which it was granted cease to exist.

ADMISSION TO GRADUATE COURSES

Graduates of this or other institutions of approved standing may enter upon such lines of work as may be approved by the appropriate official of the college in which the work lies. When such students are enrolled in regular classes they will be subject to the ordinary rules of attendance and examination.

In the Colleges of Agriculture and Domestic Science, Engineering, Law, and Pharmacy:

Master's degrees are conferred upon graduates in Agriculture, Horticulture and Forestry, Engineering, Law, and Pharmacy at the end of not less than one year's residence, which must be wholly

devoted to the completion of an approved course of study in the University. Each candidate is required, in addition, to present an acceptable thesis upon some subject connected with his course of study.

In the Colleges of Arts, Philosophy, and Science, and Education:

Registration as a student in the Graduate School is open to all graduates of the College of Arts, Philosophy, and Science of this University, and to graduates of other colleges of this University, or of other universities or colleges who satisfy the Administrative Board that they are qualified to pursue with profit the work here offered in the lines of study which they wish to carry on.

Graduates of institutions of which the undergraduate courses of study are not substantially equivalent to the course prescribed in this University for the bachelor's degree will be required to do an additional amount of undergraduate work, or to prolong their term of residence, before being admitted to full candidacy for a higher degree.

Bachelors of this University or of other institutions who do not wish to become candidates for a higher degree may be admitted as special graduate students.

Application for admission as a graduate student should be addressed to the Chairman of the Administrative Board of the Graduate School, of the College of Arts, Philosophy, and Science, or the Dean of the College of Education, Ohio State University, Columbus.

DESCRIPTION OF SUBJECTS ACCEPTED FOR ADMISSION

Not all of these subjects are required for admission to any one college or course. For the specific requirements for admission to a particular college or course, see statement under that college.

(A) ENGLISH GROUP

ENGLISH COMPOSITION AND RHETORIC. One unit. Each applicant must be able to write clear and correct English, and no applicant will be accepted in English whose work is seriously defective in spelling, punctuation, grammar, and paragraph structure. The

proper preparation for this part of the requirement is practise in composition through the four preparatory years, with correction of themes by the teacher and revision by the pupil. Subjects for themes should be taken from the books prescribed for general reading below and also from the pupil's observation and experience. Practise should be afforded in writing narrative, description, exposition, and argumentation. Applicants should be familiar with those principles of Rhetoric which are most helpful in elementary composition; viz., the principles of sentence structure, outlining, paragraphs, and choice of words. The amount and kind of work required is indicated in Scott and Denney's Elementary Composition and Composition-Literature.

ENGLISH CLASSICS. One unit. (a) A thorough knowledge of the subject-matter, form, and structure of Shakespere's Macbeth, Milton's Lycidas, Comus, L'Allegro, Il Penseroso; Burke's Speech on Conciliation with America (or Washington's Farewell Address and Webster's First Bunker Hill Oration); Macaulay's Life of Johnson (or Carlyle's Essay on Burns). (b) A general knowledge of the substance of ten books selected from the following groups: Group 1 (two to be selected), Shakespere's As You Like It, Julius Caesar, Merchant of Venice, Twelfth Night, Henry the Fifth; Group 2 (one to be selected), Bunyan's Pilgrim's Progress, part 1; Bacon's Essays, The Sir Roger de Coverley Papers in the Spectator, Franklin's Autobiography; Group 3 (one to be selected), Chaucer's Prologue, selections from Spenser's Faerie Queene, Pope's Rape of the Lock, Goldsmith's Deserted Village, Palgrave's Golden Treasury, first series, books ii and iii, with especial attention to Dryden, Collins, Gray, Cowper, and Burns; Group 4 (two to be selected), Hawthorne's House of the Seven Gables, Thackeray's Henry Esmond, George Eliot's Silas Marner, Dickens' A Tale of Two Cities, Scott's Ivanhoe, Quentin Durward, Goldsmith's Vicar of Wakefield, Mrs. Gaskell's Cranford, Blackmore's Lorna Doone; Group 5 (two to be selected), Emerson's Essays (selected), Ruskin's Sesame and Lilies, Irving's Sketch Book, Carlyle's Heroes and Hero Worship, DeQuincey's Joan of Arc and the English Mail Coach, Lamb's Essays of Elia; Group 6 (two to be selected), Palgrave's Golden Treasury, first series, book iv., with especial attention to Wordsworth, Keats, and Shelley, Coleridge's Ancient Mariner, Lowell's Vision of Sir Launfal, Scott's Lady of the Lake, Poe's Poems, Tennyson's Gareth and Lynette, Lancelot and Elaine, The Passing of Arthur, Arnold's Sohrab and Rostrum, Byron's Mazeppa, The Prisoner of Chillon, Macaulay's Lays of Ancient Rome, and

Browning's Cavalier Tunes, Lost Leader, How They Brought the Good News, Evelyn Hope, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, The Boy and the Angel, One Word More, Herve Riel, Pheidippides.

ENGLISH LITERATURE. One unit. A good knowledge of the leading facts in the history of English Literature, as given in Scudder's English Literature, Johnson's History of English and American Literature or the Introductions by Pancoast, Painter, Halleck, or Newcomer; together with the reading of representative works of literature. This may be offered in lieu of the work in English Classics.

(B) HISTORY GROUP

CIVIL GOVERNMENT. One-half unit. A good knowledge of the origin, principles, forms and powers of the national, state, and local governments is expected. Fiske's Civil Government, with a special study of the state from which the student comes, may serve to indicate the amount and kind of knowledge sought.

UNITED STATES HISTORY. One or one-half unit. A good knowledge of the main facts and features of American History, especially of the period since 1750, is expected. McLaughlin's History of the American Nation, Montgomery's Student's American History, or Hart's Essentials in American History will serve to show the kind and amount of knowledge sought. No credit upon certificate will be accorded in this subject for work done below the ninth grade.

GENERAL HISTORY OR MEDIÆVAL AND MODERN HISTORY. One unit or one-half unit. Adams' European History or Harding's Essentials in Mediæval and Modern History, Myers' Mediæval and Modern History (revised), or an equivalent.

GREEK AND ROMAN HISTORY. One or one-half unit. Botsford's Ancient History for Beginners, or West's Ancient World, or Wolfson's Essentials in Ancient History, or an equivalent.

ENGLISH HISTORY. One or one-half unit. Higginson and Channing's English History for Americans, or Walker's Essentials in English History, or Cheyney's Short History of England, or an equivalent.

(C) MATHEMATICS GROUP

ALGEBRA. One unit. Wells, Wentworth, Milne, or an equivalent. Special attention should be given to the four fundamental operations (single and system), factoring, highest common factor, lowest common multiple, fractions and fractional equations, involution, evolution, surds, complex quantities, quadratic equations solved by factoring, by completing the square and the general formula.

ALGEBRA. One-half unit. A thorough review of the work above named, irrational equations, simultaneous quadratic equations, higher equations solvable by factoring, ratio, proportion, progressions, theory of exponents, binomial theorem for positive integral exponents, and use of five-place tables of logarithms. It is recommended that this work be taken in the last year of the high school course.

GEOMETRY. One unit. Venable, White, Wells, Wentworth, Beman and Smith, or an equivalent. Plane geometry with solution of originals.

GEOMETRY. One-half unit. Solid and spherical geometry, with solution of originals given in the text-books named above.

(D) SCIENCE GROUP

PHYSICS. One unit. Carhart and Chute's Elements, Gage's Elements, Avery's Elements, Millikin and Gale's First Course in Physics, or an equivalent. Four recitation periods per week, including drill on simple numerical problems is recommended. A laboratory period of not less than two hours per week, to accompany the work of the text-book, is strongly urged, but is not required for the present.

PHYSICAL GEOGRAPHY. One or one-half unit. Tarr's, Dryer's Davis', or Gilbert and Brigham's Physical Geography. The class work should be accompanied by a study of the physiographical forms and processes to be seen near the school.

BOTANY. One or one-half unit. Equivalent of the work outlined in an elementary text-book (such as Coulter's, Bailey's, Bergin's, Andrews', Leavitt's, Barnes', Atkinson's, Stevens') and of a small hand book of the local flora (Kellerman's Spring Botany).

CHEMISTRY. One unit. McPherson and Henderson's Elementary Study of Chemistry, together with the Exercises in Chemistry arranged to accompany the same, or the equivalent. The course should consist of at least three recitations and four hours of laboratory work weekly throughout the year.

PHYSIOLOGY. One-half unit. Colton's Briefer Course, or an equivalent. No credit will be accorded in this subject for work done below the ninth grade.

ZOOLOGY. One or one-half unit. Jordan, Kellogg, and Heath's Animal Studies; Kellogg's Elementary Zoology; Davenport's Introduction; or equivalents, with laboratory or field work.

GEOLOGY. One-half unit. Brigham's, Dana and Rice's (revised), Tarr's, or LeConte's may be used as texts. The recitations should be supplemented by study of the geological phenomena and formations found in the vicinity of the school.

ASTRONOMY. One-half unit. Young's Lessons, Comstock's, or an equivalent.

ELEMENTARY AGRICULTURE. One-half unit. Texts: Jackson and Dougherty or Bailey.

(E) FOREIGN LANGUAGE GROUP

LATIN. First unit. Pronunciation (Roman method); Grammar (an exact knowledge of the inflections). Second unit. Cæsar, the first four books of the De Bello Gallico. Third unit. Cicero, six orations of Cicero, including Pro Lege Manilia. Fourth unit. Vergil, the first six books of the Aeneid with Prosody; and Prose Composition, Daniel, Collar, Bennett, Dodge and Tuttle, or Pearson, entire. Latin cannot be continued as a university study unless at least three units are offered for admission. Pupils should be trained to the systematic use of one of the standard grammars.

GREEK. First unit. Grammar (Goodwin's preferred) and Prose Composition; or White's First Greek Book. Second unit. Reading: The first three books of Xenophon's Anabasis. A third unit will be allowed for preparation in the fourth, fifth, and sixth books of the Anabasis and three books of Homer's Iliad, and a fourth unit for additional reading in Greek.

GERMAN. Two units. The pupil must possess a good pronunciation and be able to read or to translate at sight easy narrative prose, showing an exact and ready knowledge of the declensions and conjugations of the language. The ordinary principles of syntax and of word-order must be thoroughly mastered and such knowledge shown by the ability to translate easy sentences into German. Some three hundred pages of simple prose and poetry must be read.

Four units. In addition to the above, the applicant must have had two years more of instruction, including the reading of from four to five hundred pages of standard prose and at least one of Schiller's dramas, with not less than fifty pages of work in prose composition. One-half of this latter amount may be offered for a third unit.

FRENCH. Two units. Applicants should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of everyday life or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below. During the first year the work should comprise: (1) Careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence and the elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (4) the reading of from 100 to 175 duodecimo pages of graduated texts, with constant practise in translating into French easy variations of the sentences read (the teacher giving the English), and in reproducing from memory sentences previously read; (5) writing French from dictation. During the second year the work should comprise: (1) The reading of from 250 to 400 pages of easy modern (nineteenth century) prose in the form of stories, plays, or historical or biographical sketches; (2) constant practise, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (5) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns,

pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

Three units. In addition to the above, applicants must have had a third year of instruction, and should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving an adequate knowledge of syntax.

Four units. In addition to the above, applicants must have had a fourth year of instruction and should be able to read at sight, with the help of a vocabulary of special or technical expressions, difficult French not earlier than that of the seventeenth century; to write in French a short essay on some simple subject connected with the works read; to put into French a passage of easy English prose, and to carry on a simple conversation in French.

SPANISH. Two units. Applicants should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put in Spanish simple English sentences taken from the language of every-day life or based upon a portion of the Spanish text read, and to answer questions on the essentials of the grammar. The first year should be spent mainly on the grammar with easy reading and oral practise; the second devoted to reading good modern Spanish, with grammatical analysis and exercises in writing. The texts read should be chiefly narrative and conversational prose, including one or more prose dramas of the present age.

Three units. In addition to the above, applicants must have had a third year of instruction, and should be able to read at sight ordinary Spanish prose or simple poetry, to translate into Spanish a connected passage of English based on the text read, and to answer questions involving an adequate knowledge of syntax.

Four units. In addition to the above, applicants must have had a fourth year of instruction, and should be able to read at sight, with the help of a vocabulary of special or technical expressions, difficult Spanish, whether prose or poetry; to write in Spanish a short essay on some simple subject connected with the works read; to put into Spanish a passage of easy English prose, and to carry on a simple conversation in Spanish.

LIST OF ACCREDITED AND RECOGNIZED SCHOOLS IN OHIO

Accredited schools are those four-year secondary schools whose courses of study have been found by inspection to be capable of satisfactorily preparing students for all colleges of the University.

Recognized schools are those three or four-year secondary schools whose courses of study are not capable of preparing students for all colleges of the University, but which have been found by inspection to cover satisfactorily 10 units of the requirements for admission.

These lists are subject to change from year to year as schools are revisited. Persons are advised therefore, to consult the latest bulletins and catalogues of the University. A shows that a school is accredited; R, that it is recognized.

School	Superintendent	Principal
Akron, A	H. V. Hotchkiss	D. C. Rybolt
Alliance, R	J. E. Morris	J. E. Vaughan
Andover, R	S. A. Harbourt	Mary McDonald
Arcanum, R	C. E. Thomas	H. L. Senseman
Ashland, R	E. P. Dean	F. C. Clark
Ashtabula, A	E. A. Hotchkiss	Lillian Kurtz
Ashville, R	Stanley Lawrence	Stanley Lawrence
Athens, A	B. O. Skinner	Zella Foster
Baltimore, R	J. H. Horton	J. J. Wagner
Barberton, R	J. M. Carr	G. M. Korns
Barnesville, A	W. R. Butcher	A. H. Denbrock
Batavia, R	B. S. Timmons	Cecile Hulick
Bedford, R	H. L. Rawdon	Miss G. E. Thomas
Bellaire, A	J. R. Anderson	Alice Cunningham
Bellefontaine, A	J. W. MacKinnon	Annie A. Price
Bellevue, R	E. F. Warner	H. C. Bates
Bethel Township, Clark Co., R	Alfred Ross	Irene Dornblaser
Bethel Township, Miami Co., R	R. W. Crist	Walter Peoples
Blanchester, R	C. L. Leahy	Elizabeth Chaney
Bluffton, R	C. A. Arganbright	I. W. Geiger
Bowling Green, A	N. D. O. Wilson	Walter F. Shaw
Bryan, A	J. W. Wyandt	Orville Smith
Bucyrus, A	W. N. Beethan	C. H. Miller
Cadiz, R	J. R. Lehman	S. L. Eby
Caldwell, R	C. J. Foster	Patrick Henry
Cambridge, A	H. Z. Hobson	John H. Harding
Camden, R	J. L. Fortney	L. D. Brouse
Canal Dover, A	F. P. Geiger	A. J. Huffman
Canal Winchester, R	A. A. McEndree	Sara Brown

School	Superintendent	Principal
Canton, A	John K. Baxter	Chas. A. Armstrong
Carey, R	A. J. Nowlan	Mattie Myers
Carthage, R	C. A. Wilson	Louise Sherer
Celina, R	S. Wilkin	J. W. Pogue
Chardon, A	W. R. Davis	Jessie King
Chillicothe, A	M. E. Hard	W. H. Rice
Cincinnati—	F. B. Dyer	
Hughes, A		E. W. Coy
Walnut Hills, A		W. T. Harris
Woodward, A		E. D. Lyon
Cin. Tech. School, A		L. M. Ballou
Circleville, A	C. L. Boyer	W. E. Sealock
Cleveland—	W. H. Elson	
Central, A		Edward L. Harris
East, A		B. U. Rannells
Lincoln, A		James W. McLane
South, A		G. A. Reutenik
West, A		C. L. Lynch
Glenville, A		H. H. Cully
Cleveland Heights, A	C. A. Tilden	C. A. Tilden
Clintonville, R	W. S. Jennings	W. S. Jennings
College Corner, R	C. E. Gillespie	Edith Francisco
Collinwood, A	Frank P. Whitney	F. C. Rulon
Columbus—	Jacob A. Shawan	
Central, A		W. M. Townsend
East, A		F. B. Pearson
North, A		C. D. Everett
South, A		C. S. Barrett
Columbus School for Girls, A		Miss G. L. Jones Miss Alice Gladden
Columbus Grove, R	J. T. Begg	M. L. Allstetter
Conneaut, R	Calvin T. Northrop	Louise E. Kahler
Corning, R	F. W. Huston	
Coshocton, A	Herman S. Piatt	C. E. Bryant
Covington, R	L. J. Bennett	D. H. Sellers
Cumberland, R	G. E. Bell	W. S. Kingston
Cuyahoga Falls, R	R. W. Solomon	H. O. Bolich
Dayton, A	J. W. Carr	Chas. L. Loos, Jr.
Defiance, R	F E. Reynolds	H. B. Mullholand
Delaware, A	W. McK. Vance	Maude I. Myers
Delphos, A	T. W. Shimp	I. F. Matteson
Delta, R	G. W. Hoffman	Viola Wilkins
DeGraff, R	N. H. Stull	Stanley A. Frampton
Dennison, R	W. H. Angel	A. J. Fry
Dresden, R	E. E. Smock	Blanche E. Baker
East Cleveland, A	W. H. Kirk	
East Liverpool, A	R. E. Rayman	Florence Updegraff
Eaton, A	F. B. Bryant	John O'Leary
Elyria, A	W. R. Comings	H. M. Ebert
Euclid, R	H. D. Rankin	Mary E. Gould

School	Superintendent	Principal
Fayette, R	C. D. Perry	E. N. Hoover
Findlay, A	J. W. Zeller	J. F. Smith
Fort Recovery, R	James Ross	(Mrs.) J. A. Hunter
Fostoria, A	S. H. Layton	Ida McDermott
Franklin School, (Cincinnati), A		Joseph E. White G. S. Sykes
Fredericktown, R	W. W. Borden	Anna B. Beattie
Fremont, A	J. E. Collins	H. M. Lowe
Friends' Boarding School (Barnesville), R		B. J. Thomas
Galion, A	I. C. Guinther	Louise John
Gallipolis, A	H. E. Conard	L. W. McKinnon
Garrettsville, R	E. F. Robison	
Geneva, R	J. E. Fitzgerald	E. A. Barnes
Georgetown, A	A. F. Waters	T. E. Hughes
Germantown, A	C. W. McClure	S. M. Heitz
Gibsonburg, R	S. H. Benson	Mary E. Baker
Glendale, A	E. H. Foster	Mary S. Evans
Grand River Institute, A		O. J. Luethi
Granville, R	J. R. Clements	Flora Hoover
Greenfield, A	E. W. Patterson	Roy Harris
Greenville, A	W. S. Rowe	J. L. Selby
Greenwich, A	J. H. Diebel	Ethel M. Hurst
Grove City, R	A. C Fries	C. F. Neiswander
Groveport, R	M. C. Warren	J. F. Paxton
Hamilton, A	Darrell Joyce	W. P. Cope
Harmony Township (Clark Co.), R	David Neer	Carlton Henry
Hartwell, A	J. S. Trisler	J. C. Mauchley
Harrison, R	Thos. P. Pierce	Mary A. Curran
Harrison Township, (Mont. Co.), R	D. W. Klepinger	A. E. Clagett
Hicksville, R	J. M. Beck	C. C. Nardin
Highland, R	C. W. Johnson	Bessie L. Smith
Hilliards, R	Chauncey Lawrence	J. B. Phillips
Hillsboro, A	F H. Warren	W. E. Arter
Home City, R	J. O. Falkenburg	Inez M. White
Ironton, A	S. P. Humphrey	T. Howard Winters
Jackson, A	J. E. Kinnison	M. A. Henson
Jefferson, A	H. S. Foote	Mary I. Hoskins
Kent, R	R. P. Clark	W. A. Walls
Kenton, A	N. E. Hutchinson	Joseph T. Glenn
Kingsville, R	E. W. Hamblin	Leah K. Sparks
Kirtland, R		
Lakeside, A	H. O. Hannah	Margaret Hull
Lakewood, A	J. M. H. Frederick	H. W. Kennedy
Lancaster, A	H. A. Cassidy	W. C. Brashares

School	Superintendent	Principal
Lebanon, R	J. M. Hamilton	L. F. Coleman
Leetonia, R	J. W. Moore	L. A. Herdle
Leipsic, R	W. S. Sackett	Florence B. McClure
Lima, A	J. A. Davidson	S. Steffens
Lisbon, R	R. C. Schroth	W. H. McCall
Lockland, A	S. T. Dial	Howard Hollenbach
Logan, A	H. F. Silverthorn	Chas. C. Garman
London, A	Wm. McClain	Marion Schlesinger
Lorain, R	A. C. Eldredge	D. J. Boone
Madison, R	Geo. C. Von Beseler	Lois Ellet
Madsion Township (Pickaway Co.), R		
Madisonville, A	C. M. Merry	(Mrs.) J. M. Bryan
Mad River Township (Enon Village), R	J. R. Clark	O. P. Hause
Malta, R	George M. Strong	L. E. Coulter
Mansfield, A	H. H. Helter	Harland E. Hall
Marietta, A	J. V. McMillan	W. H. Maurer
Marion, A	H. L. Frank	C. H. Winans
Martins Ferry, A	L. E. York	O. C. Hursch
Marysville, A	L. B. Demorest	D. H. Sellers
Massillon, A	C. L. Cronebaugh	Goffrey A. Lyon
Mechanicsburg, A	J. W. Bowen	L. H. Seigler
Medina, A	J. R. Kennon	Fannie E. Thomson
Miamisburg, A	W. T. Trump	Hardy Jackson
Middletown, A	Arthur Powell	Geo. C. Stahl
Montpelier, R	T .G. Paseo	F. W. Leist
Mt. Gilead, R	C. B. Stoner	F. J. Ryan
Mt. Sterling, R	Frank E. Wilson	Kathryn Weber
Mt. Vernon, A	J. S. Alan	R. E. Offenhauer
Napoleon, A	P. C. Zemer	F. W. Leist
Nelsonville, A	Aaron Grady	O. C. Jackson
Newark, A	J. D. Simkins	T. Otto Williams
New Bremen, R	C. F. Limbach	J. O. Erwin
New Lexington, R	J. M. Gordon	G. A. Elliott
New London, A	W. H. Mitchell	Stella M. Townsend
New Lyme Institute, A		H. C. White
New Philadelphia, A	G. C. Maurer	G. A. Wyly
New Richmond, R	S. L. Turnipseed	Marguerite T. Rowell
New Vienna, R	W. C. Hutchinson	Clifford Thompson
Niles, R	F. J. Roller	W. H. C. Newington
North Baltimore, R	B. O. Martin	S. L. Eby
Norwalk, R	A. D. Beechy	James E. Cole
Norwood, A	W. S. Cadman	W. W. McIntire
Oak Harbor, R	H. H Hoffman	(Mrs.) Sarah R. Gill
Oberlin, A	Ward Nye	J. B. Crouch
Oberlin Academy, A		J. F. Peck
Ohio Military Institute, R	A. M. Henshaw	S. P. C. Roberts
Orrville, R	A. H. Ething	A. J. Gerber

School	Superintendent	Principal
Osborne, R	W. H. Batson	Winifred Creamer
Ottawa, R	G. J. Keinath	L. F. Gehres
Oxford Coll. Acad., R	Jane Sherzer	Catherine Cox
Painesville, A	F. H. Kendall	A. H. Mabley
Pandora (Riley Township), R	C. D. Steiner	Cary O. Altman
Pataskala, R	E. E. Atwell	J. C. Evans
Perrysburg, R	C. E. Stinebaugh	Olive Woodard
Piqua, A	J. R. Beachler	F. E. C. Kirkendall
Plain City, R	J. S. Edwards	Lola A. Smythe
Pleasant Ridge, R	F. L. Simmerman	
Pomeroy, R	C. T. Coates	Dollie Hooper
Port Clinton, R	C. C. Underwood	Charlotte M. Ward
Portsmouth, A	Frank Appel	W. D. Gilliland
Quaker City, R	W. G. Wolfe	J. O. Eagleson
Ravenna, R	E. O. Trescott	W. J. Dodge
Reynoldsburg, R	Arthur L. Gantz	Wm. S. Coy
Richwood, R	R. H. Allison	W. E. Shrader
Ripley, R	R. B. Smith	John W. Thalman
Sabina, R	M. J. Flannery	T. C. Madden
Salem, A	J. S. Johnson	B. F. Stanton
Salineville, R	Frank Linton	W. H. Hannum
Sandusky, A	H. B. Williams	Geo. C. Dietrich
Shelby, A	S. H. Maharry	D. J. Schaeffer
Sidney, A	Herbert R. McVay	Lee R. Dollenger
Solon, R	A. B. Horst	Charlotte Parker
Somerset, R	J. W. Davis	E. R. Beck
South Charleston, R	H. W. Paxton	Mrs. E. W. Bradley
Spencerville, R	Thos. J. Class	E. S. Bolton
Springfield, R	Carey Bogess	C. C. Patterson
Steubenville, A	R. L. Ervin	J. Vernon Cox
St. Mary's, A	C. C. McBroom	J. Howard Spohn
St. Paris, R	Jas. H. Fortney	Florence Hunter
St.Raphael's School, A		Sister Rosetta
Tiffin, A	C. A. Krout	H. H. Frazier
Tippecanoe City, R	Orville Crist	E. R. Rike
Toledo, A	Chas. L. Van Cleve	Wm. B. Guitteau
Troy, A	C. W. Cookson	Edward M. Traber
Uhrichsville, R	L. E. Everett	C. W. Jackson
Union City (Ind.), A	O. H. Blossom	J. O. Batchelor
Urbana, A	I. N. Keyser	H. N. Morton
Urbana Univ., A	Frank A. Gustafason	Russell Eaton
Ursuline Acad. (Brown Co.), R		Sister M. Baptista
Upper Sandusky, R	R. J. Kiefer	Glenn E. True
Utica, R	F. P. Householder	
Van Wert, A	J. P. Sharkey	Orrin Bowland

School	Superintendent	Principal
Wadsworth, R	A. J. Krabill	Frank L. Lytle
Wapakoneta, A	Charles Haupert	Mary O. Conrath
Warren, A	C. E. Carey	F. E. Ostrander
Washington C. H., A	James T. Tuttle	Frederic C. Peters
Wauseon, A	C. J. Biery	Orille Eastman
Waverly, R	J. F. Henderson	G. W. Caldwell
Wellington, A	R. H. Kinnison	Elizabeth Day
Wellston, A	E. S. McCall	J. W. Whiteside
Wellsville, A	J. L. MacDonald	Ruby C. Mason
West Alexandria, R	L. D. Brouse	Clara Smith
Westerville, R	J. P. West	J. F. Nave
West Jefferson, R	L. C. Dick	Maie Walker
West Milton, R	F. B. Harris	Mary E. Thomas
West Unity, R	W. A. Salter	Adah Weiser
Willoughby, A	S. D. Shankland	Edward M. Ottis
Wilmington, R	E. P. West	F. P. Blair
Woodsfield, R	C. S. McVey	H. O. Young
Wooster, A	D. L. Thompson	Laura B. Kean
Worthington, R	Harvey S. Gruver	J. J. McDonald
Wyoming, A	C. S. Fay	Evelyn M. Prichard
Xenia, A	Edwin B. Cox	Geo. J. Graham
Youngstown, A	N. H. Chaney	Wells L. Griswold
Zanesville, A	W. D. Lash	Ira C. Painter

ACCREDITED SCHOOLS OF OTHER STATES

COLORADO—Aspen; Canon City; Colorado Springs; Colorado State Preparatory; Cripple Creek; Denver—East Side, West Side, North Side, South Side, Manual Training; Durango; Florence; Fort Collins; Golden; Grand Junction; Greeley; Idaho Springs; La Junta; Leadville; Longmont; Loveland; Monte Vista; Pueblc—Centennial, Central; Salida; Trinidad; Victor.

ILLINOIS—Alton; Augustana Coll. Academy (Rock Island); Aurora—East, West; Beardstown; Belleville; Belvidere—North, South; Bloomington; Blue Island; Bradley Polytechnic Institute (Peoria); Cairo; Carthage Coll. Academy; Champaign; Chicago—Austin, Calumet, Crane (Man. Tr.), Curtis, Englewood, Hyde Park, Jefferson, Lake View, Marshall, McKinley, Medill, Phillips, South Chicago, Tuley, Waller; Chicago Heights (Bloom Tp.); Danville; Decatur; DeKalb Tp.; Desplaines (Maine Tp.); Dixon; DuQuoin Tp.; Elgin; Elgin Academy; Evanston Tp.; Evanston Academy; F. W. Parker (Chicago); Freeport; Galva; Grand Prairie Seminary (Onarga); Harrisburg Tp.; Harvey (Thornton Tp.); Highland Park (Deerfield Tp.); Hinsdale; Hoopeston; Ill. Woman's Coll. Prep. Dept. (Jacksonville); Joliet Tp.; J. Sterling Morton Tp.; Kankakee; New Trier Tp.; Kenwood Institute (Chicago); Kewanee; Lake Forest Academy; La Salle-Peru Tp.; Lyons Tp. (La Grange); Macomb; Mattoon; Maywood and Melrose Park Tp.; Moline; Morgan Park Tp.; Normal; N. W. Military Academy; Oak Park

Tp.; Ottawa Tp.; Pekin; Peoria; Polo; Pontiac Tp.; Princeton Tp.; Quincy; Rochelle; Rockford; Rock Island; Savanna Tp.; Springfield; Sterling Tp.; Streator Tp.; Sycamore; Tuscola; Waukegan Tp.; Western Mil. Acad. (Upper Alton); Wheaton.

INDIANA—Alexandria; Anderson; Attica; Bedford; Bluffton; Connersville; Crawfordsville; Elkhart; Elwood; Evansville; Fort Wayne; Franklin; Greenfield; Hammond; Indianapolis—Manual Training, Shortridge; Kokomo; Lafayette; Logansport; Michigan City; Muncie; Plymouth; Rensselaer; Rochester; Shelbyville; South Bend; Terre Haute; Valparaiso; Vincennes; Winona Park (Young Women).

IOWA—Algona; Ames; Boone; Burlington; Cedar Rapids; Cherokee; Clarinda; Clinton; Corning; Corydon; Council Bluffs; Creston; Davenport; Decorah; Denison, Des Moines—East, North, West; Dubuque; Eagle Grove; Fort Dodge; Grinnell; Ida Grove; Iowa City; Keokuk; La Mars; Marengo; Marion; Marshalltown; Mason City; Missouri Valley; Newton; Osage; Onawa; Oskaloosa; Ottumwa; Red Oak; Sheldon; Sioux City; Vinton; Washington; Waterloo—East, West.

KANSAS—Abilene; Emporia; Fort Scott; Hiawatha; Iola; Junction City; Kansas City; Lawrence; Leavenworth; Paola; Sumner Co.; Wichita; Winfield.

MICHIGAN—Adrian; Albion; Alpena; Ann Arbor; Battle Creek; Bay City, E. S.; Bay City, W. S.; Benton Harbor; Benton Harbor Col. Inst.; Bessemer; Cadillac; Calumet; Coldwater; Crystal Falls; Detroit—Central, Delray, Eastern, Western, Higgins, University; Dowagiac; Evart; Flint; Grand Rapids; Hancock; Houghton; Howell; Ionia; Iron Mountain; Jackson; Kalamazoo; Lansing; Manistee; Manistique; Marshall; Marquette, Menominee; Michigan Military Acad.; Monroe; Muskegon; Mt. Clemens; Mt. Pleasant; Niles; Norway; Otsego; Owosso; Petoskey; Port Huron; Portland; Saginaw, E. S.; Saginaw, W. S.; South Haven; St. Johns; St. Joseph; Union City; Wyandotte.

MINNESOTA—Albert Lea; Anoka; Austin; Blue Earth; Crookston; Duluth Central; Ely; Eveleth; Fairmont; Faribault, Fergus Falls; Grand Rapids; Hastings; Hibbing; Hutchinson; Little Falls; Mankato; Marshall; Minneapolis—Central, East, North, South; Montevideo; Moorhead; Morris; New Ulm; Northfield; Owatonna; Red Wing; Rochester; St. Cloud; St. James; St. Paul—Central, Cleveland, Humboldt; St. Peter; Sleepy Eye; Stillwater; Virginia; Waseca; Willmar; Winona.

MISSOURI—Blees Military Academy; Boonesville; Carrollton; Carthage; Chillicothe; Kansas City—Central Manual Training, Westport; Kemper Military Academy; Kirkwood; Marysville; Mexico (McMillan High); Nevada; Poplar Bluff; St. Joseph; St. Louis—Central, Manual Training; McKinley, Smith Academy, Yeatman; Stephen's College; Trenton; Webster Grove; Westminster Col. Academy; William Woods College.

NEBRASKA—Auburn; Beatrice; Blair; Brownell Hall; Falls City; Fairbury; Fremont; Grand Island; Hastings; Lincoln; Lincoln Academy; McCook; Nebraska City; Nebraska Wesleyan Academy; Norfolk; Omaha; South Omaha; Superior; York.

NORTH DAKOTA—Devils Lake; Fargo; Grafton; Grand Forks; Jamestown.

SOUTH DAKOTA—Aberdeen; All Saints, Sioux Falls; Brookings; Deadwood; Lead; Madison, Mitchell; Sioux Falls; Vermillion; Watertown; Webster; Yankton.

WISCONSIN—Antigo; Appleton; Ashland; Baraboo; Beaver Dam (Wayland Academy); Beloit; Berlin; Black River Falls; Chippewa Falls; Columbus; Eau Claire; Elkhorn; Evansville; Fond du Lac; Grand Rapids; Hartford; Janesville; Kaukauna; Kenosha; La Crosse; Lancaster; Lodi; Madison; Madison (Wisconsin Academy); Manitowoc (North); Marinette; Marshfield; Medford; Menasha; Menominie; Merrill; Milwaukee — East, North, South, West; Milwaukee-Downer Seminary; Monroe; Neenah; Neillsville; Oconomowoc; Oconto; Oshkosh; Plymouth; Portage; Racine; Racine College Grammar School; Reedsburg; Rhinelander; Ripon; River Falls; Sheboygan; Sinsinawa (St. Clara Academy); Sparta; Stevens Point; Stoughton; Sturgeon Bay; Superior, Blaine; Superior, Nelson Dewey; Washburn; Waukesha; Waukesha, Carroll College Academy; Waupaca; Wausau; Wauwatosa; Whitewater.

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE

The College of Agriculture and Domestic Science offers seven distinct courses of study:—

1. A four-year course in Agriculture.
2. A four-year course in Horticulture and Forestry.
3. A two-year course in Agriculture.
4. A two-year course in Horticulture.
5. A special course in Dairying.
6. A ten-weeks winter course in Agriculture.
7. A four-year course in Domestic Science.

The four-year courses of this College are regular collegiate courses of the University and lead to the degrees of Bachelor of Science in Agriculture, Bachelor of Science in Horticulture and Forestry, and Bachelor of Science in Domestic Science. The short courses are for students who are not so well prepared and are unable to spend four years in the University.

FACULTY AND INSTRUCTORS

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University.

HOMER CHARLES PRICE, M. S. A., DEAN, Professor of Rural Economics, and Manager of University Farm.

ALFRED VIVIAN, Ph. G., SECRETARY, Professor of Agricultural Chemistry.

WILLIAM RANE LAZENBY, M. Agr., Professor of Horticulture and Forestry.

HENRY ADAM WEBER, Ph. D., Professor of Agricultural Chemistry.

GEORGE WELLS KNIGHT, Ph. D., Professor of American History and Political Science.

ALBERT MARTIN BLEILE, M. D., Professor of Anatomy and Physiology.

WILLIAM ASHBROOK KELLERMAN, Ph. D., Professor of Botany.

*JOSEPH VILLIERS DENNEY, A. B., Professor of English.

WILLIAM MCPHERSON, Ph. D., Professor of Chemistry.

DAVID STUART WHITE, D. V. M., Professor of Veterinary Medicine.

HERBERT OSBORN, M. Sc., Professor of Zoology and Entomology.

FRANK EDWIN SANBORN, S. B., Professor of Industrial Arts.

JOHN ADAMS BOWNOCKER, D. Sc., Professor of Inorganic Geology.

CHARLES SUMNER PLUMB, B. Sc., Professor of Animal Husbandry.

SEPTIMUS SISSON, B. Sc., V. S., Professor of Comparative Anatomy.

LEWIS A. RHOADES, Ph. D., Professor of Germanic Languages and Literatures.

CHARLES BRADFIELD MORREY, B. A., M. D., Professor of Bacteriology.

JAMES EDWARD HAGERTY, Ph. D., Professor of Economics and Sociology.

THOMAS EWING FRENCH, M. E., Professor of Engineering Drawing.

ARTHUR GILLETT MCCALL, B. Sc. (Agr.), Professor of Agronomy.

OSCAR ERF, B. Sc. (Agr.), Professor of Dairying.

FREDERICK RUPERT MARSHALL, B. S. A., Professor of Animal Husbandry.

RUTH AIMEE WARDALL, M. A., Professor of Domestic Science.

GEORGE WASHINGTON MCCOARD, M. A., Associate Professor of Mathematics.

CHARLES A. BRUCE, B. A., Associate Professor of Romance Languages.

*JOHN H. SCHAFFNER, A. M., M. S., Associate Professor of Botany.

JAMES STEWART HINE, B. Sc., Associate Professor of Zoology and Entomology.

FRANCIS LEROY LANDACRE, B. A., Associate Professor of Zoology and Entomology.

VIRGINIA BABB, B. D., Associate Professor of Domestic Art.

V. M. SHOESMITH, B. Sc., Associate Professor of Agronomy.

CHARLES LINCOLN ARNOLD, M. Sc., Assistant Professor of Mathematics.

VERNON HAYES DAVIS, M. S. A., Assistant Professor of Horticulture and Forestry.

EDGAR S. INGRAHAM, Ph. D., Assistant Professor of Romance Languages.

ROBERT F. EARHART, Ph. D., Assistant Professor of Physics.

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*Absent on leave, 1907–1908.

ADMISSION

Applicants for admission must be at least sixteen years of age. The College is open on equal terms to both sexes.

REQUIREMENTS FOR THE FOUR YEAR COURSES

Applicants to be admitted to full standing must obtain credit by examination or certificate for twelve units*, chosen from the five groups which follow, subject to the restrictions stated therein.

Applicants may be admitted to the four-year course in Agriculture and to the four-year course in Horticulture and Forestry for the year 1908–1909† without examination on presentation of properly endorsed certificates from any first or second grade high school in this state.

No applicant will be admitted with total conditions in excess of two units, not counting the requirements in group E, but in no case with conditions amounting to more than three units.

(A) ENGLISH GROUP

Two units are required in this group.

English Composition and Rhetoric.....1 unit
English Classics.....1 unit
English Literature.....1 unit

(B) HISTORY GROUP

Two units are required in this group.

Civil Government.....½ unit
United States History.....½ or 1 unit
Mediæval and Modern or Gen'l Hist'y 1 or ½ unit
Greek and Roman History.....1 or ½ unit
English History.....½ or 1 unit

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* A unit is a course of study covering a school year of not less than thirty-two weeks, with four or five periods per week.

† It is the intention of the University to have all the first and second grade high schools in the state inspected as rapidly as possible, with the idea of preparing a list of schools recognized for these courses. For the year 1908–1909, however, all first and second grade schools will be recognized for the courses in Agriculture and in Horticulture and Forestry.

(C) MATHEMATICS GROUP

Two units are required in this group, consisting of Algebra (through quadratics) and Plane Geometry.

Algebra (through quadratics).....1 unit
Algebra (beyond quadratics).....½ unit
Geometry (plane).....1 unit
Geometry (solid and spherical).....½ unit

(D) SCIENCE GROUP

Two units are required in this group, including Physics and Botany.

Physics.....1 unit
Physical Geography.....½ or 1 unit
Botany.....½ or 1 unit
Chemistry.....1 unit
Physiology.....½ unit
Zoology.....½ or 1 unit
Elements of Agriculture.....½ unit

(E) FOREIGN LANGUAGE GROUP

Two units are required in this group; and two additional units from this or the preceding groups. A single unit in a foreign language will not be counted toward entrance.

Latin.....2, 3, or 4 units
Greek.....2, 3, or 4 units
German.....2, 3, or 4 units
French.....2, 3, or 4 units
Spanish.....2, 3, or 4 units

The extent and character of the work required in each subject mentioned above is described on page 95 and following.

REQUIREMENTS FOR THE SHORT COURSES

No examinations will be required for the two-year courses in Agriculture or Horticulture, but the applicant must be at least seventeen years of age and must satisfy the Entrance Board that he has had practical experience in agriculture or horticulture.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work in this college and do not desire to become candidates for degrees, will be admitted on the conditions stated on page 94.

ADMISSION TO ADVANCED STANDING

For admission to advanced standing in this college see requirements as stated on page 93.

ADMISSION TO GRADUATE WORK

Graduates of this College or of other institutions of approved standing may take graduate work in any of the departments of this College. Such students shall elect a major and minor subject and submit to the Graduate Committee of this College an outline of their course of study with the approval of the heads of the departments in which the work is to be taken. Upon the completion of one year's residence, which is devoted wholly to the completion of the course of study approved by the Graduate Committee, and the presentation of an acceptable thesis upon some subject connected with the major elective, the degree of Master of Science in Agriculture will be conferred.

COURSE IN AGRICULTURE

Degree—Bachelor of Science in Agriculture.

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours. For description of the courses, see corresponding numbers under the departments of instruction.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (7 or 44) Inorganic.	4.	Chemistry (7 or 44) Inorganic.	4.	Chemistry (12) Qualitative.	4.
				Chemistry (42) Organic.	2.
Zoology (1) Invertebrate.	3.	Zoology (1) Invertebrate.	3.	Zoology (1) Vertebrate.	3.
English (1) Paragraph Writing.	2.	English (1) Paragraph Writing.	2.	English (1) Paragraph Writing.	2.
An. Husbandry (23) Cattle and Sheep.	4.	An. Husbandry (24) Horses and Swine.	4.	An. Husbandry (26) Dairy Cattle.	4.
Drawing (10)	3.	Shopwork (2)	3.	Shopwork (1)	3.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Agronomy (2) Farm Equipment.	4.	An. Husbandry (6) Principles of Breeding.	4.	Agronomy (22) Crops.	4.
Agr. Chem. (13)	5.	Agr. Chem. (13)	5.	Agr. Chem. (13)	5.
Botany (6)	4.	Botany (7)	4.	Botany (8)	4.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Zoology (4) Entomology.	3.	Zoology (4) Entomology.	3.	Zoology (4) Entomology.	3.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.

THIRD YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Geology (2) General.	5.	Geology (5) Applied.	4.	Agronomy (12) Soils.	4.
Dairying (12)	4.	Horticulture (6)	4.	Horticulture (3)	4.
Modern Language French, German, or Spanish.	4.	Modern Language French, German, or Spanish.	4.	Modern Language French, German, or Spanish.	4.
		Astronomy (3)	2.		

And one of the following:

An. Husbandry (2) Breeds of Live Stock.	4.	An. Husbandry (8) Feeding.	4.	An. Husbandry (4) Breeds of Live Stock.	4.
Vet. Medicine (28)	4.	Vet. Medicine (29)	4.	Vet. Medicine (30)	4.
Horticulture (11)	4.	Dairying (24)	4.	Dairying (26)	4.
Zoology (9) Entomology.	4.	Zoology (10) Entomology.	4.	Zoology (11) Entomology.	4.
Bacteriology (5)	4.	Bacteriology (8 or 9)	4.	Bacteriology (8 or 9)	4.
Agr. Chemistry (*)	4.	Agr. Chemistry (*)	4.	Agr. Chemistry (*)	4.
Botany (*)	4.	Botany (*)	4.	Botany (*)	4.
Chemistry (46&47)	4.	Chemistry (46&47)	4.	Chemistry (46&47)	4.

FOURTH YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Am. History (1) or Economics (33)	3.	Am. History (1) or Economics (33)	3.	Am. History (1) or Economics (33)	3.
Rural Econom. (2) Farm Management.	4.	Rural Econom. (4) History of Agriculture.	4.	Rural Econom. (6) Agricultural Economics.	4.

Ten hours a week throughout the year from any of the courses given in any of the colleges of the University upon which the student is qualified to enter, except the College of Law.

Two hours a week of this elective work may be devoted to a thesis, subject to the consent of the instructor under whom the thesis is to be written.

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* Students electing Agricultural Chemistry or Botany in their Junior year should consult the department interested regarding the same before being registered.

COURSE IN HORTICULTURE AND FORESTRY

Degree—Bachelor of Science in Horticulture and Forestry.

NOTE.—The figure in parenthesis following the name of each subject indicates the number of that subject in its department; the other figure the number of credit hours. For full description of courses, see corresponding number under the departments of instruction.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry(7 or 44) Inorganic.	4.	Chemistry(7 or 44) Inorganic.	4.	Chemistry (12) Qualitative.	4.
				Chemistry (42) Organic.	2.
Zoology (1) Invertebrate.	3.	Zoology (1) Invertebrate.	3.	Zoology (1) Vertebrate.	3.
English (1) Paragraph Writing.	2.	English (1) Paragraph Writing.	2.	English (1) Paragraph Writing.	2.
*French (1)		French (1)		French (1)	
German (1) or Spanish (1)	4.	German (1) or Spanish (1)	4.	German (1) or Spanish (1)	4.
Drawing (10)	3.	Shopwork (2)	3.	Shopwork (1)	3.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Gymnasium	1.	Gymnaisum	1.	Gymnasium	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Horticulture (1) Elements.	4.	Horticulture (2) Vegetable Forcing.	4.	Horticulture (3) Plant Propagation.	4.
Agr. Chem. (13)	5.	Agr. Chem. (13)	5.	Agr. Chem. (13)	5.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Zoology (4) Economic.	3.	Zoology (4) Economic.	3.	Zoology (4) Economic.	3.
Botany (6)	4.	Botany (7)	4.	Botany (8)	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.

THIRD YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Horticulture (5) Varieties of Fruit.	4.	Horticulture (6) Principles of Fruit Culture.	4.	Horticulture (14) Olericulture.	4.
Agronomy (2) Farm Equipment.	4.	Geology (5) Applied.	4.	Agronomy (22) Crops.	4.
Geology (2) General.	5.	Horticulture (18) Apiculture.	3.	Agronomy (12) Soils.	4.
				Zoology (3) Economic.	3.
French (2)		French (2)		French (2)	
German (4)		German (4)		German (4)	
Spanish (2) or Botany (17) Forestry.	4.	Spanish (2) or Botany (17) Histology of Wood.	4.	Spanish (2) or Botany (17) Forest Ecology and Pathology.	4.

FOURTH YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Horticulture (8) Ornamental Plants.	2.	Horticulture (9) or Window Gardening and Floriculture.		Horticulture (10) Home Gardening.	2.
		Horticulture (17) Plant Variation.	2.		
Horticulture (11) Elements of Forestry.	5.	Horticulture (12) Forest Technology and Timber Physics.	5.	Horticulture (15) Landscape Gardening.	3.
Am. History (1) or Political.				or Hortic. (13) Forest Economics.	5.
		Am. History (1) or Political.		Am. History (1) or U. S. Political.	
Economics (33) Political.	3.	Economics (33) Political.	3.	Economics (33) Political.	3.

ELECTIVE

Seven hours a week through the year, chosen from any of the courses given in any college of the University upon which the student is qualified to enter, except the College of Law, two hours a week of which may be devoted to thesis, subject to the approval of the department in which the thesis is to be written.

TWO-YEAR COURSE IN AGRICULTURE

NOTE.—The figure in parenthesis following the name of each subject indicates the number of that subject in its department; the other figure the number of credit hours. For full description of courses, see corresponding number under the departments of instruction.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
An. Husbandry (1)	4.	An. Husbandry (1)	4.	An. Husbandry (1)	4.
Horticulture (1)	4.	Horticulture (1)	4.	Horticulture (1)	4.
Drawing (10)	3.	Shopwork (1)	3.	Shopwork (2)	3.
Chemistry (3) Elementary.	4.	Chemistry (3) Elementary.	4.	Chemistry (45) or Qualitative Analysis.	
				Agr. Chem. (16) Soil Fertility.	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Agronomy (2) Farm Equipment.	4.	Agronomy (11) Soils.	4.	Agronomy (22) Crops.	4.
Dairying (12) Elementary.	4.	Dairying (24) Dairy Equipment.	4.	Dairying (26) Farm Dairying.	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
And two subjects each term chosen from the following:					
Vet. Medicine (28)	4.	Vet. Medicine (29)	4.	Vet. Medicine (30)	4.
An. Husbandry (25) Dairy Cattle.	4.	An. Husbandry (3) Stock Feeding.	4.	An. Husbandry (5) Stock Breeding.	4.
Horticulture (19) Pomology.	4.	Horticulture (19) Pomology.	4.	Horticulture (19) Pomology.	4.
Zoology (7) Entomology.	4.	Zoology (7) Entomology.	4.	Zoology (7) Entomology.	4.
Physiology (2)	3.	Bacteriology (2)	3.	Rural Econom. (1)	4.
Mathematics (1) Algebra.	5.	Mathematics (3a) Geometry.	5.	Botany (1) Elementary.	5.
Physics (1)	5.	Physics (1)	5.	Geology (1) Physical Geography.	5.

TWO-YEAR COURSE IN HORTICULTURE

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Horticulture (1)	4.	Horticulture (1)	4.	Horticulture (1)	4.
Zoology (7) Entomology.	4.	Zoology (7) Entomology.	4.	Zoology(7) Entomology.	4.
Drawing (10)	3.	Shopwork (2)	3.	Shopwork (1)	3.
Chemistry (3) Elementary.	4.	Chemistry (3) Elementary.	4.	Chemistry (45) or Qualitative Analysis.	
				Agr. Chem. (16) Soil Fertility.	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Horticulture (19) Pomology.	4.	Horticulture (19) Pomology.	4.	Horticulture (19) Pomology.	4.
Agronomy (2) Equipment.	4.	Agronomy (11) Soils.	4.	Agronomy (22) Crops.	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Not less than seven hours from the following:					
Horticulture (11) Elements of Forestry.	5.	Horticulture (18) Apiculture.	3.	Horticulture (15) Landscape Gardening.	3.
Horticulture (8) Floriculture.	2.	Horticulture (2)	4.	Horticulture (14) Vegetable Gardening.	4.
Mathematics (1) Algebra.	5.	Mathematics (3a) Geometry.	5.	Rural Econom. (1) Farm Management.	4.
Physics (1)	5.	Physics (1)	5.	Geology (1) Physical Geography.	5.
Physiology (2)	3.	Bacteriology (2)	3.	Botany (1) Elementary.	5.
		Meterology (3)	2.		

WINTER COURSES

SPECIAL WINTER COURSE IN DAIRYING (Known as the Ohio Dairy School)

This course in dairying is established to meet the wants of those who have neither the time nor means for more extended courses. It is designed especially for those who are desirous of mastering the art of butter and cheese making or who wish to become fitted for the position of manager or superintendent of a creamery or cheese factory. In this course the greater part of the time is given to the laboratory or dairy room practise. This consists in the testing of milk as to purity and content of butter fat; the use and care of centrifugal separators and other dairy devices; the making of butter and cheese by the most improved methods; in short, all the essential operations of the creamery, factory, and home dairy management are repeatedly performed under the guidance and direction of competent instructors. A special bulletin describing this course will be mailed upon application to anyone interested.

WINTER COURSE IN AGRICULTURE

The ten weeks Winter Course in Agriculture has been established to meet the needs of those Ohio farmers who are unable to avail themselves of the other courses in agriculture offered by the University. There are a large number of young men located on the farms of our state who are so situated that it is impossible for them to be absent from their homes during the nine months of the college year, but yet desire some training in the principles of agriculture. On other farms are found mature men, who are past the usual school age but are ambitious to become familiar with the most recent agricultural thought and practises.

This course offers to such men an opportunity to become familiar with the results of the latest investigations in agriculture and to study the theories resulting from this research and their practical application to work on the farm.

Those interested are invited to write for the special announcement describing this course.

DOMESTIC SCIENCE COURSE

Degree—Bachelor of Science in Domestic Science.

NOTE.—The figure in parenthesis following the name of each subject indicates the number of that subject in its department; the other figure the number of credit hours. For full description of courses, see corresponding number under the departments of instruction.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry(7 or 44) Inorganic.	4.	Chemistry(7 or 44) Inorganic.	4.	Chemistry (12) Qualitative Analysis.	4.
				Chemistry (42) Organic.	2.
Art (10)	2.	Art (11)	2.	Art (12)	2.
English (1) Paragraph Writing.	2.	English (1) Paragraph Writing.	2.	English (1) Paragraph Writing.	2.
Zoology (1) Invertebrate.	3.	Zoology (1) Invertebrate.	3.	Zoology (1) Vertebrate.	3.
*French (1)		French (1)		French (1)	
German (1) or Spanish (1)	4.	German (1) or Spanish (1)	4.	German (1) or Spanish (1)	4.
Domestic Art (1) Hand Craft.	2.	Domestic Art (2) Textiles.	2.	Domestic Art (3) Textiles.	2.
Hygiene & Physical Training	1.	Hygiene & Physical Training	1.	Hygiene & Physical Training.	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Agr. Chem. (14)	5.	Agr. Chem. (14)	5.	Physiology (3) Chemical.	3.
Dom. Science (1) Foods.	4.	Dom. Science (2) Foods.	4.	Dom. Science (3) Foods.	4.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Botany (13)	3.	Botany (13)	3.	Botany (13)	3.
Hygiene & Physical Training.	1.	Hygiene & Physical Training.	1.	Hygiene & Physical Training.	1.

THIRD YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Dom. Science (4) Dietetics.	4.	Domestic Art (4) History of Costume.	4.	Domestic Art (5) Household Art and Decoration.	4.
Drawing (20) Mechanical.	1.	Drawing (15) Technical.	1½.	Drawing (15) House Designing.	1½.
French (2)		French (2)		French (2)	
German (4) or Spanish (2)	4.	German (4) or Spanish (2)	4.	German (4) or Spanish (2)	4.

* Where credit is received for elementary French, German, or Spanish, French (2) 4 hours, German (4) 4 hours, or Spanish (2) 4 hours is required.

Not less than six hours from the following:

Architecture (9) History of Arch.	3.	Architecture (10) History of Arch.	3.	Architecture (11) History of Arch.	3.
English (8)	3.	English (8)	3.	English (8)	3.
Economics (33) Political Economy.	3.	Economics (33) Political Economy.	3.	Economics (33) Political Economy.	3.
European His. (1)	3.	European His. (2)	3.	European His. (3)	3.
Am. History (1) U. S. Political.	3.	Am. History (1) U. S. Political.	3.	Am. History (1) U. S. Political.	3.
Bacteriology (5)	4.	Bacteriology (7)	4.	Bacteriology (7)	4.
Drawing (14) Pen Drawing.	2.	Drawing (18) Water Color.	3.	Drawing (19) Water Color.	2.
Drawing (17)	2.	Drawing (40) Clay Modeling.	2.	Drawing (41) Clay Modeling.	2.

FOURTH YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
House Eco. (10)	3.	Dom. Science (11) Household Management.	3.	Dom. Science (12) Teachers' Course.	3.
Domestic Art (6) Theory and Practice.	4.				

ELECTIVE

Twelve hours a week through the year, chosen from any of the courses given in any college of the University upon which the student is qualified to enter, except the College of Law.

COLLEGE OF ARTS PHILOSOPHY AND SCIENCE

ORGANIZATION

The College of Arts, Philosophy, and Science comprises:

The Undergraduate Courses.
The Graduate School.
The Lake Laboratory.

In connection with the College of Law the combined Arts-Law Course.

FACULTY AND INSTRUCTORS

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University.

*JOSEPH VILLIERS DENNEY, B. A., DEAN and Professor of English.

WILBUR HENRY SIEBERT, A. M., ACTING DEAN and Professor of European History.

CHARLES A. BRUCE, B. A., SECRETARY, and Associate Professor of Romance Languages.

WILLIAM HENRY SCOTT, LL. D., Professor of Philosophy.

SAMUEL CARROLL DERBY, A. M., Professor of the Latin Language and Literature.

JOSIAH RENICK SMITH, A. M., Professor of the Greek Language and Literature.

BENJAMIN FRANKLIN THOMAS, Ph. D., Professor of Physics.

GEORGE WELLS KNIGHT, Ph. D., Professor of American History and Political Science.

ROSSER DANIEL BOHANNAN, B. Sc., C. E., E. M., Professor of Mathematics.

ALBERT MARTIN BLEILE, M. D., Professor of Anatomy and Physiology.

†WILLIAM ASHBROOK KELLERMAN, Ph. D., Professor of Botany.

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* Absent on leave, 1907–1908.
† Died March 8, 1908.

BENJAMIN LESTER BOWEN, Ph. D., Professor of Romance Languages and Literatures.

*ALLEN CAMPBELL BARROWS, A. M., D. D., Professor of English.

WILLIAM MCPHERSON, Ph. D., Professor of Chemistry.

HERBERT OSBORN, M. Sc., Professor of Zoology and Entomology, and Director of the Lake Laboratory.

HENRY CURWEN LORD, B. Sc., F. R. A. S., Professor of Astronomy and Director of the Emerson McMillin Observatory.

†CHARLES SMITH PROSSER, D. Sc., Professor of Geology.

JOHN ADAMS BOWNOCKER, D. Sc., Professor of Inorganic Geology, and Curator of the Museum.

LEWIS ADDISON RHOADES, Ph. D., Professor of Germanic Languages and Literatures.

DAVID R. MAJOR, Ph. D., Professor of Psychology.

CHARLES BRADFIELD MORREY, B. A., M. D., Professor of Bacteriology.

JAMES EDWIN HAGERTY, Ph. D., Professor of Economics and Sociology.

EMILY E. BRACKEN, Professor of Art.

HENRY RUSSELL SPENCER, Ph. D., Professor of American History and Political Science.

GEORGE WASHINGTON MCCOARD, M. A., Associate Professor of Mathematics.

ARTHUR WINFRED HODGMAN, Ph. D., Associate Professor of the Classical Languages.

WILLIAM EDWARDS HENDERSON, Ph. D., Associate Professor of Chemistry.

JOSEPH RUSSELL TAYLOR, M. A., Associate Professor of English.

CHARLES WILLIAM FOULK, B. A., Associate Professor of Chemistry.

†JOHN H. SCHAFFNER, M. Sc., Associate Professor of Botany.

JAMES STEWART HINE, B. Sc., Associate Professor of Zoology and Entomology.

FRANCIS LEROY LANDACRE, B. A., Associate Professor of Zoology and Entomology.

WALLACE STEDMAN ELDEN, Ph. D., Associate Professor of the Classical Languages.

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*Died January 19, 1908.

†Absent on leave 1907–1908.

MATTHEW BROWN HAMMOND, Ph. D., Associate Professor of Economics and Sociology.
GEORGE B. VILES, Ph. D., Associate Professor of Germanic Languages and Literatures.
FREDERICK EDWARD KESTER, Ph. D., Associate Professor of Physics.
HARRY WALDO KUHN, Ph. D., Associate Professor of Mathematics.
WILLIAM LUCIUS GRAVES, M. A., Assistant Professor of English.
GEORGE H. MCKNIGHT, Ph. D., Assistant Professor of English.
THOMAS HARVEY HAINES, Ph. D., Assistant Professor of Philosophy.
EDWIN F. CODDINGTON, Ph. D., Assistant Professor of Mechanics.
EDGAR S. INGRAHAM, Ph. D., Assistant Professor of Romance Languages.
EDGAR HOLMES MCNEAL, Ph. D., Assistant Professor of European History.
FAYETTE AVERY MCKENZIE, Ph. D., Assistant Professor of Economics and Sociology.
ARTHUR ERNEST DAVIES, Ph. D., Assistant Professor of Philosophy.
JOHN C. DUNCAN, M. S., Assistant Professor of Economics and Sociology.
WALTER THOMPSON PIERCE, Ph. D., Assistant Professor of Romance Languages.
JOHN B. PRESTON, M. A., Assistant Professor of Mathematics.
ROBERT F. GRIGGS, M. A., Assistant Professor of Botany.
JAMES REMWICK WITHROW, Ph. D., Assistant Professor of Chemistry.
FREDERIC C. BLAKE, Ph. D., Assistant Professor of Physics.

REQUIREMENTS FOR ADMISSION

Applicants to be admitted to full standing must obtain credit by examination or certificate for fifteen units, chosen from the five groups which follow, subject to the restrictions stated therein. (A unit is a course of study covering a school year of not less than thirty-five weeks with five periods of at least forty-five minutes each per week.) No one under twenty-one years of age* will be admitted on less than thirteen units.

(A) ENGLISH GROUP

Two units are required in this group. An applicant presenting one unit in this group will be admitted *conditionally*, if his arrearage in all of the groups does not exceed two units. All arrearages must be made good within two years after admission. Preparation in excess of two units in this group may be offered in lieu of the extra units of group (E).

English Composition and Rhetoric.....1 unit
English Classics.....1 unit
English Literature.....1 unit

(B) HISTORY GROUP

Two units are required in this group. An applicant presenting one unit in this group will be admitted *conditionally*, if his arrearage in all of the groups does not exceed two units. All arrearages must be made good within two years after admission. Preparation in excess of two units in this group may be offered in lieu of the extra units of group (E).

Civil Government.....½ unit
United States History.....½ or 1 unit
Mediaeval and Modern or Gen'l Hist'y1 or ½ unit
Greek and Roman History.....1 or ½ unit
English History.....½ or 1 unit

*A person twenty-one years of age, or over, who desires to pursue a special line of work and does not desire to become a candidate for a degree, may be admitted by vote of the Executive Committee to such classes as he is qualified to enter; provided, that if he afterwards becomes a candidate for a degree he must pass the requirements for admission at least one year before the degree is conferred. See "Admission to Special Studies."

(C) MATHEMATICS GROUP

Three units are required in this group. An applicant presenting two and one-half units in this group will be admitted *conditionally*, if his arrearage in all of the groups does not exceed two units. All arrearages must be made good within two years after admission.

Algebra (through quadratics).....1 unit
Algebra (beyond quadratics).....½ unit
Geometry (plane).....1 unit
Geometry (solid and spherical).....½ unit

(D) SCIENCE GROUP

Two units are required in this group, including physics. An applicant presenting one unit in this group will be admitted *conditionally*, if his arrearage in all of the groups does not exceed two units. All arrearages must be made good within two years after admission. Preparation in excess of two units in this group may be offered in lieu of the extra units of group (E).

Physics.....1 unit
Physical Geography.....½ or 1 unit
Botany.....½ or 1 unit
Chemistry.....1 unit
Physiology.....½ unit
Zoology.....½ or 1 unit
Geology.....½ unit
Astronomy.....½ unit

(E) FOREIGN LANGUAGE GROUP

Six units are required in this group; or two extra units from the preceding groups, and four units from this. A deficiency of two units is allowed in this group if the total arrearage in all of the groups does not exceed *two* units. All arrearages must be make good within two years after admission.

Latin.....2, 3, or 4 units
Greek.....2, 3, or 4 units
German.....2, 3, or 4 units
French.....2, 3, or 4 units
Spanish.....2, 3, or 4 units

A single unit of a foreign language will not be counted toward entrance.

The extent and character of the work required in each subject mentioned above is indicated on page 95 and following.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work in this College will be admitted on the conditions stated on page 94.

ADMISSION TO ADVANCED STANDING

For admisson to advanced standing in this college see requirements as stated on page 93.

ADMISSION TO GRADUATE SCHOOL

For admission to graduate school see statement as found on page 95.

REQUIREMENTS FOR GRADUATION

UNDERGRADUATE COURSES OF STUDY

The work of the College of Arts, Philosophy, and Science is organized on the group-elective system. Several of the groups correspond in their chief studies and learning aims to the "courses"* formerly offered, but with much greater flexibility and much freer opportunities for election. Many other "courses" having equally specific aims are also provided in the groups. The groups, so far as at present arranged, number twelve. This number will be increased as reasonable demand may arise for new groups. The characteristic features of each group may be judged from its name which is made up of the names of the chief studies of the group. The groups at present recommended are given on pages 132 to 134.

About one-third of every student's curriculum is prescribed. Each student is required to lay sufficiently broad foundations, during the first two years, in English, in two other languages to be chosen by himself, in mathematics and one science, or in two sciences to be chosen by himself, and in history, economics, English, or philosophy. The remaining two-thirds of each student's work is elective; but in order to insure substantial results in the studies thus freely chosen, the student is required to continue two of

*Arts or Classical, Latin Philosophy, Modern Language Philosophy, English Philosophy, General Science, Commerce and Administration, Education, Preparatory to Law, Preparatory to Medicine, Preparatory to Journalism.

his first-year studies (any two) through the second year, one of his second-year studies (any one) through the third year, and one of his third-year studies (any one) through the fourth year. In order to guard against the danger of too narrow or too wide a range of work, a maximum and a minimum number of departments is fixed in which the student is allowed to work during any one year. In the first and second years the number of departments thus fixed is four or five; in the third and fourth years the number is three or four.

SUMMARY AND REQUIREMENTS

On satisfactory completion of 180 term hours under the restrictions prescribed below, the student will be recommended for the Degree of Bachelor of Arts.

The 180 term hours must include the following, amounting to 57 term hours:

(a) English 1. (2-2-2) 6 term hours.

(b) Two of the following languages: (8-8-8) 24 term hours.
Greek 1 or 7, 8, 9; Latin 1, 2, 3;
French 1 or 2; German 1 or 4; Spanish 1 or 2.

(c) Mathematics 31, 32, 33, and 24. (6-6-6) 18 term hours or
Two of the following: at least (6-6-6) 18 term hours.
Mathematics 21, 22, 23; Physics 11 or 2;
Chemistry 7 or 44; Botany 21, 22, 23; Zoology 31.
Geology 17; Physiology 1.

(d) One of the following: (3-3-3) 9 term hours.
European History 1 or 14; American History 1;
Political Science 1; Economics 30, 31, and 32;
Psychology 1, and Philosophy 101 or 103; English 7 or 8.

For the remaining 123 term hours required for graduation the student may elect from any courses announced for students of this college in the "Departments of Instruction" (see page 198 et seq.), as follows:

American History and Political Science—All courses.
Anatomy and Physiology—Courses 1, 3, 4, 5, 9, 11.
*Architecture—33.
*Art—1 to 40.
Astronomy—All courses.

Bacteriology—5, 6, 7, 10, 11, 12, 15.
Botany—3, 4, 9, 11, 13, 15, 16, 17, 20, 21, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36.
Chemistry—7, 44, 12, 17, 21, 8, 9, 35, 32, 15, 25, 26, 27, 28, 29, 30, 36, 37, 38, 39, 40, 41, 71, 72, 73, 74, 75, 76, 77.
*Civil Engineering—21.
*Domestic Science—1, 2, 3, 10; or Domestic Art, 1, 2, 3.
Economics and Sociology—All courses.
*Electrical Engineering—6, 7, 8, 9, 11, 15, 16, 17.
*Engineering Drawing—15, 20, 24, 25, 26, 45, 46, 47.
English—All courses.
European History—All courses.
Geology—6, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21.
German—All courses.
Greek—All courses.
Latin—All courses.
Mathematics—All courses from 21 to 43.
*Mechanical Engineering—34.
*Mechanics—1, 2, 3.
*Metallurgy and Mineralogy—2, 3, 5.
Philosophy—All courses.
Physics—2, 3, 4, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28.
Psychology—All courses.
Romance Languages—All courses.
Zoology and Entomology—2, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 30, 31, 33, 34.

FIRST YEAR

(a) Fifteen or sixteen hours each term, chosen from the prescribed work indicated above, including English 1.

(b) Cadet Service and Physical Training (men). Hygiene and Physical Training (women); required throughout the first year.

SECOND YEAR

(a) Fifteen hours each term. This must include all the prescribed work not done in the first year; the other work of the second year to be in three or four departments of which at least two shall be departments in which the student has worked during the first year.

(b) Cadet Service (men); Hygiene and Physical Training (women); required throughout the second year.

* With the permission of the Executive Committee.

THIRD YEAR

Fifteen hours each term in three or four departments, at least one to be a department in which the student has worked during the second year.

FOURTH YEAR

Fifteen hours each term in three or four departments, at least one to be a department in which the student has worked during the third year.

EXTRA HOURS

A student who has postponed a study in group (b) from the first to the second year, may take sixteen hours in the second year, and by the permission of the Executive Committee a student who has shown exceptional proficiency may be allowed to undertake from one to three extra hours. No extra hours will be granted to a first-year student, or to any student with conditions outstanding.

RULE GOVERNING ELECTIONS

Each student enrolled in the College of Arts, Philosophy, and Science must file at the Registrar's office not later than June 1st of each year a complete statement of the courses he wishes to enter the following year. Blanks for this purpose may be obtained of the Registrar.

STUDENT ADVISERS

The Faculty of Arts, Philosophy, and Science has provided a system of advisers, the chief objects of which are: (1) to assist the undergratuate in choosing studies that will result in a well-rounded course and will achieve most economically the purpose which the student has in view in his course; (2) to promote closer personal relations between students and instructors and thus to aid the student, so far as possible, in all matters connected with his university life. During his first term of residence each student is assigned by the Executive Committee to a member of the teaching force to whom he is cordially invited to resort for counsel as often as the need arises. Each student is required to secure the signature of his adviser to his election-card in June of each year, and to petitions, at any time during the year, for a change in work or for increase or diminution of work.

FIRST YEAR OPTIONS

In order to meet the requirements for graduation, the first-year student must arrange his work on one of the following plans:

I. English; two languages; two sciences, or mathematics and one science, or mathematics alone; deferring until the second year the selection from group (d), above.

II. English; two languages; mathematics or science; one subject from group (d); deferring until the second year a second subject from group (c), above.

III. English; one language; two sciences, or mathematics and one science or mathematics alone; one subject from group (d); deferring until the second year the second language from group (b), above.

In order to assist the student in his choice of work for the first two years, more specific directions are given below in connection with various natural groupings of studies. *These groups are not mandatory.* The student may make other combinations than those suggested, provided his selection of studies fulfills one of the three options given above. In the second year many other combinations are possible. The time schedule, however, is arranged primarily to fit the combinations recommended. The days and hours at which each study is taught may be found by looking up that study on page 198 (et. seq.) of this Bulletin. The title of a group indicates the chief studies of that group.

STUDY GROUPS

1. CLASSICAL. First year: Greek 1 or 7, 8, 9; Latin 1, 2, 3; English 1; either 6 hours in (c) or 3 hours in (c) and 3 hours in (d). Second year: Greek 7, 8, 9 or 10, 11, 12; Latin 4, 5, 6; begin or continue a modern language, a science and a study in Economics, History, Political Science, or Sociology. Before choosing work in (c) or (d), read groups 4 to 12.

2. LATIN, MODERN LANGUAGE. First year; Latin 1, 2, 3; French 1 or 2, or German 1 or 4; English 1; either 6 hours in (c) or 3 hours in (c) and 3 hours in (d). Second year: Latin 4, 5, 6; French or German; English; begin or continue a science and a study in Economics, History, Political Science, or Sociology. Before choosing work in (c) or (d), read groups 4 to 12.

3. MODERN LANGUAGES. First year: Begin or continue French and German. (*Not more than one new language should be begun in the first year*). English 1; either 6 hours in (c) or 3 hours in (c) and 3 hours in (d). Second year: Continue French and German; begin or continue a science and a study in Economics, History, Political Science, or Sociology; add English 7 or 8. Before choosing work in (c) or (d), read groups 4 to 12.

4. GENERAL SCIENCE. First year: French 1 or 2 or German 1 or 4; Chemistry 7 or 44; Mathematics 21, 22, 23; English 1; 3 hours in (d). Second year: A second modern language; a study in Economics, English, History, Political Science, or Sociology; one of the following; Astronomy, Chemistry, Physics; one of the following: Botany, Geology, Physiology, Zoology; the remaining time in Mathematics or Science. Students intending to specialize in Chemistry should continue that subject the second year of the course. Those who have Geology in view should take Geology 17 and 11, 12, 13 in their second year.

5. MATHEMATICS, PHYSICS, ASTRONOMY. First year: Mathematics 31, 32, 33, 24; French 1 or 2 or German 1 or 4; English 1; 3 hours in (d). Second year: Mathematics 41, 42, 43; Physics 2; Chemistry 7 or 44; English and a second modern language (German or French). Third year: Astronomy 1; Physics 12; and either Astronomy 2 or Physics 3; and additional science (3 hours); English or History 2 or 3 hours; German or French unless each has been studied two full years. Instead of Mathematics 31, 32, 33, 24 in the first year, Chemistry 1 and Mathematics 21, 22, 23 may be chosen, and be followed by Mathematics in the second year.

6. BIOLOGICAL SCIENCES. First year: French 1 or 2, or German 1 or 4; Chemistry 7 or 44; Botany 21, 22, 23, or Zoology 31; English 1; 3 hours in (d). Second year: Botany; Zoology 31 or 2; Physiology 1; Geology 17 or Mathematics 21, 22, 23 or Physics 11; and a second modern language. Students preparing for medicine should take Zoology 31 in the first year and Zoology 2 and Physiology 1 in the second year.

7. ECONOMICS, HISTORY, First year: Include European History 1, 2, 3 or Economics 30, 31, 32; English 1; French 1 or 2, or German 1 or 4; 6 hours in (c). Second year: Include Economics 30, 31, 32, or 33; European History 1, 2, 3, or 14; American History 1 or Political Science 1; 4 hours in (b). In each of the third and fourth years include two courses in Economics and one in History, or two in History and one in Economics.

8. HISTORY, POLITICAL SCIENCE, ADMINISTRATION. First year: Include European History, 1, 2, 3 or 14, or American History 1; English 1; 6 hours in (b), including French 1 or 2, or German 1 or 4; 3 hours in (c). Second year: Include Political Science 1 and the course in History not taken the first year, and Economics 33; 3 hours in (c). The student who has not a reading command of French or German should continue the modern language of the first year. In each of the third and fourth years include either two courses in History and one in Political Science, or one course in History and two in Political Science; and in one of these years Economics 42, 43.

9. GENERAL BUSINESS. First year: Include Economics 30, 31, 32; English 1; Geology 17; Mathematics 21, 22, 23; and one of the following: French 1 or 2, German 1 or 4, or Spanish 1 or 2. Second year: Include Economics 33; English 7 or 8; Chemistry 7 or 44, or Physics 11 or 2; American History 1, or European History 1, 2, 3; begin or continue a modern language.

10. SOCIOLOGY, PHILOSOPHY. First year: Include Economics 30, 31, 32; English 1; Physiology 1; Zoology 31; and French 1 or 2, or German 1 or 4. Second year: Include Economics 33; English 7 or 8; Psychology 1 and Philosophy 101; American History 1 or European History 1, 2, and 3; begin or continue a modern language.

11. PHILOSOPHY, EDUCATION. First year: Follow suggestions in Study Group 1, 2, or 3, except that only three hours be taken in (c), and that Psychology 1 and Philosophy 101 be taken as the subject in (d). Second year: Include Philosophy 103, and Psychology 2; begin or continue a modern language, a science in (c) and a study in Economics, History, Political Science, or Sociology.

12. GENERAL LITERATURE. First year: Continue both languages offered for admission; English 1; 3 hours in (c); European History 1, 2, 3. Second year. Begin or continue a modern language, a science and two courses in History, including European History 14; English 7 or 8. Take a course in Philosophy throughout the third year.

THE ARTS–LAW COURSE

A candidate for the Degree of Bachelor of Arts while registered in the College of Arts, Philosophy, and Science may also register in the College of Law as a candidate for the degree of Bachelor of Laws, *provided* that at the time of seeking such registration in the College of Law (1) he has 135 term hours to his credit in the College of Arts, Philosophy, and Science, including the requisite optional

subjects, and exclusive of the credit hours in Military Drill and Physical Training, and (2) has been a student in the College of Arts, Philosophy, and Science of this University at least one year, and (3) has included (or with the further work in the College of Arts, Philosophy, and Science mentioned in the next paragraph shall complete) sufficient courses to amount to thirty term hours in one or more of the five subjects: American History, European History, Economics, Sociology, and Political Science, exclusive of elementary courses in those subjects.

A student so registered in the two colleges must during his first year of double registration complete sufficient further work in the College of Arts, Philosophy, and Science to make his credits in that college aggregate 150 term hours, exclusive of the credit hours in Military Drill and Physical Training. When he has done this and has completed in the College of Law the first year of the course for the degree of Bachelor of Laws, he will be recommended for the degree of Bachelor of Arts; and when he has completed the second and third years of such course in the College of Law, he will be recommended for the degree of Bachelor of Laws.

Application to enter the combined course must be filed with the Dean of the Arts College before registration day at the beginning of the year in which the student is eligible to enter the combined work.

No credit in the College of Arts, Philosophy, and Science will be given for work done in the College of Law except as above provided, but regular fourth-year students in the former college may by special permission take a limited amount of the work in the College of Law without credit in the College of Arts, Philosophy, and Science.

The work of all students taking studies in the two colleges at the same time is under the jurisdiction of a joint committee, consisting of Professor Denney, Dean of the College of Arts, Philosophy, and Science; Dean of the College of Law; Professors Seibert and Page, and Associate Professor Bruce.

GRADUATE SCHOOL

ORGANIZATION

Within the last few years the demands upon the University for advanced graduate instruction made by college graduates of Ohio have increased so rapidly and become so great as to warrant and require a definitely organized graduate department. To meet this demand and to stimulate research the faculty of the College of Arts, Philosophy, and Science established in 1902 the Graduate School. The object of the School is to emphasize and utilize in highest degree the large facilities which the University affords for advanced students and to secure an effective and systematic arrangement and supervision of the higher work. The Graduate School has no distinct faculty separate from the College of which it is a part, but the work of graduate students within each department of instruction is with but few exceptions carried on under the immediate direction and oversight of the head of the department. The supervision and administration of all matters connected with the School have been lodged in the Administrative Board of the Graduate School, consisting of the Dean and four other members chosen from the faculty of the College. The Chairman of the Administrative Board is Professor George W. Knight, to whom all communications should be addressed. The other members of the Board are Dean Denney and Professors Derby, Osborn, and McPherson.

ADMISSION

(See also page 95.)

Application for admittance as a graduate student should be addressed to the Chairman of the Administrative Board of the Graduate School. Full details should be forwarded of the candidate's previous course of study, the degree sought, and the special preparations already had in the lines of work he desires to pursue here.

As the first question to be decided is whether the baccalaureate degree already taken by the applicant is substantially the equivalent of the degree given in the College of Arts, Philosophy, and Science, full information on this

point is required. This should include a general statement of the character of the course pursued, with special reference to the amount of mathematics, science, and the languages, including English. Blank forms of application may be obtained from the Chairman of the Administrative Board.

The second question touches the qualifications of the applicant to enter upon advanced work in the special departments of study in which he desires to work. In order to determine this, a detailed statement is necessary of the previous course of study in the subjects which the applicant desires to pursue. Official evidence of the above statements must be submitted before the applicant is admitted to full registration.

No graduate student will be registered as a candidate for a higher degree later than October first of the academic year in which he seeks the degree. Special graduate students, not candidates for a degree, may be registered at the beginning of any term of the academic year.

COURSE OF CONSTRUCTION

FOR CANDIDATES FOR HIGHER DEGREES—Unlike the curriculum for undergraduates, the work of candidates for higher degrees is not confined to specific courses of instruction regularly offered in the College. Each student chooses a major subject and one or two minor subjects, which must be approved by the Administrative Board before he enters upon his work. The work may consist of attendance upon specified courses or of private research or reading and report thereon. The professors in charge of the studies chosen constitute a special committee, the professor in charge of the major study chosen being the chairman, to arrange the details of the work comprising the major and minor studies, to supervise the work of the student, to examine and pass judgment on the thesis, and to conduct a final examination. Upon the completion of the prescribed course a final examination upon the entire work undertaken for the degree is held under the direction of the special committee, except that at the option of the committee the examination upon the minor or minors may be held whenever such minor or minors are completed.

With the approval of the Administrative Board a candidate for a higher degree may elect specific courses, addi-

tional to the major and minor studies. For such election any course offered in the College of Arts, Philosophy, and Science is open to candidates who satisfy the head of the department that they are qualified to pursue it with profit. The amount of such additional elective, if any, which the student may take will in each case be determined by the Administrative Board, and it is to be understood that such work, if allowed, will not be credited towards the degree for which the candidate is working.

FOR GRADUATE STUDENTS NOT CANDIDATES FOR A DEGREE.—Graduate students who are not seeking a higher degree are not required to designate major and minor studies, but may select their work with a view to the special purpose for which they are in attendance at the University. Any course of instruction announced in the College of Arts, Philosophy, and Science is open for election by graduate students not candidates for a degree who satisfy the head of the department that they are qualified to pursue it with profit. But the list of electives so chosen must in each case be approved by the Administrative Board before the student enters upon his work.

Should such student subsequently desire to become a candidate for a higher degree the Administrative Board will determine how much, if any, of the work previously done as a graduate student can be counted as a part of the major and minor studies requisite for the degree sought.

REQUIREMENTS FOR HIGHER DEGREES

Two higher degrees, Master of Arts and Doctor of Philosophy, are conferred by the University upon the completion of approved courses of resident graduate study in the Graduate School of the College of Arts, Philosophy, and Science.

MASTER'S DEGREE.—The degree of Master of Arts is open to those holding the Bachelor's degree who have been admitted to full candidacy as indicated above (see Admission, second paragraph). A candidate for the Master's degree is required to spend at least one year at the University subsequent to the taking of his Bachelor's degree and to complete a course of study approved by the Administrative Board. The amount of graduate work that may be carried by a Fellow in any year shall be determined by the Administrative Board after certification by the President of the

amount and nature of the Fellow's dues in assisting the department in which he holds his fellowship. With the consent of the Administrative Board the work of candidates for the Master's degree may be distributed over more than one year. The Master's degree is not conferred for study *in absentia*, except that candidates for this degree who are graduates of this University may be permitted by vote of the Administrative Board to do not to exceed one-half of their work in the graduate departments of other universities or other approved institutions which offer equivalent work, the candidate to be subject in all cases to examination at this University on all work thus pursued elsewhere in candidacy for the degree.

A holder of the Bachelor's degree will be recommended for the degree of Master of Arts upon completing the prescribed term of residence, and passing a final examination in the course of study laid out for him, covering a major and one or two minor subjects approved by the Administrative Board, and, unless waived by the same body, the submission and acceptance of a thesis on some subject within the field of the major study. The major study must be advanced specialized work; the minor study or studies may, with the approval of the Administrative Board, be of a less advanced character.

The subject for the Master's thesis must be chosen and approved by December 1st, and the completed thesis must be submitted not later than June 1st. A typewritten copy of the accepted thesis must be deposited with the University before the candidate will be recommended for a degree.

DOCTOR'S DEGREE.—The degree of Doctor of Philosophy is open to those holding the Bachelor's degree who have been admitted to full candidacy as indicated above (see Admission, second paragraph) ,and who also fulfill the terms of this and the next paragraph. At least three years of resident graduate work is required, but on approval of the Administrative Board the first year, or the first two years, may be spent at another university which offers equivalent graduate work.

Persons who hold the Master's degree from this University, or for actual resident graduate study at another university offering equivalent graduate opportunities and work, may ordinarily expect to shorten by one year the above requirement as to time and amount of work for the Doctor's degree.

Save in the case of persons who come properly accredited from a graduate school of some other university, no student will be fully enrolled as a candidate for the degree of Doctor of Philosophy until he has been in residence as a graduate student at this University for one year. Formal application for enrollment as a candidate for the degree must be made at least one year before the candidate expects to present himself for final examination. No person will be admitted to candidacy for the degree who does not possess at the time of enrollment a reading knowledge of French and German.

Each candidate for the Doctor's degree must pursue a major study and two allied minor studies, one of which may be within the same department as the major. All of them must be advanced, specialized work. The degree is intended to represent not a specified amount of work, covering a specified time, but long study and high attainment in a special field.

Each candidate is required to prepare a thesis within the field of his major study, involving an extended research or investigation and constituting an original contribution to knowledge. The thesis for the Doctor's degree is one of the most essential factors in the candidate's work, since it measures his accuracy and power of independent investigation. The preparation of an acceptable thesis will usually require the greater part of an academic year.

After the acceptance of the thesis the candidate will be examined by his special committee upon the entire work undertaken for the degree, except that at the option of the committee the examination on the minors may be held whenever such minors are completed.

Each candidate is required to have his accepted thesis printed and to deposit fifty copies with the University Library.

The subject of the thesis for the Doctor's degree must be chosen, and approved by the special committee, by November 1st of the college year in which the applicant expects to take the degree. The completed thesis must be submitted not later than May 1st. The final examination will be held not later than June 1st.

LAKE LABORATORY

(See pages 196–197.)

COLLEGE OF EDUCATION

This College is one of the instrumentalities of the State for the training of teachers. It offers practical and theoretical courses for the training of high school teachers and principals, for principals of elementary schools, for supervisors of special studies, for superintendents of school systems, and for instructors in normal schools. Its purpose is to assist the student in the acquirement of a knowledge of the branches which he wishes to teach, to give him a right attitude toward education, and to establish in him a skill in the use of efficient methods of teaching.

FACULTY

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University.

WILLIAM W. BOYD, A. M., DEAN and Professor of School Administration.

GEORGE D. HUBBARD, Ph. D., SECRETARY, Assistant Professor of Geology.

VIRGINIA BABB, B. Dom. Sc., Associate Professor of Domestic Art.

ROSSER DANIEL BOHANNAN, B. Sc., C. E., E. M., Professor of Mathematics.

EMILY E. BRACKEN, Professor of Art.

JOSEPH VILLIERS DENNEY, B. A., Professor of English.

SAMUEL CARROLL DERBY, A. M., Professor of the Latin Language and Literature.

FRANK P. GRAVES, Ph. D., LL. D., Professor of the History and Philosophy of Education.

GEORGE WELLS KNIGHT, Ph. D., Professor of American History and Political Science.

MARY R. LAVER, Assistant Professor of Art.

WILLIAM MCPHERSON, Ph. D., Professor of Chemistry.

DAVID R. MAJOR, Ph. D., Professor of Psychology.

LEWIS ADDISON RHOADES, Ph. D., Professor of Germanic Languages and Literatures.

WILBUR HENRY SIEBERT, A. M., Professor of European History.

RUTH AIMEE WARDALL, A. M., Professor of Domestic Science.

....., Professor of the Principles and Practices of Education.

....., Professor of Manual Training.

....., Professor of Music.

CURRICULA

Two general classes of curricula have been provided. The first consists of four year courses leading to the degree of Bachelor of Science in Education. The second consists of certificate courses of two years in length. In the four year courses, the first two years are given largely in the College of Arts, Philosophy, and Science. But students preparing to teach agriculture and those preparing to teach domestic science will take the first two years of work in the College of Agriculture and Domestic Science, while students preparing to teach manual training will take the first two years of work in the College of Engineering. Upon entering the University, all students preparing to teach should consult the Dean of the College of Education regarding the arrangement of their courses.

COLLEGE ASSIGNMENT

If a student is admitted without advanced standing, he will be assigned for the first two years to the college within which is found opportunity to pursue that branch of study which he is preparing to teach. Usually this will be in the College of Arts, Philosophy, and Science, but it may be in the College of Engineering or in the College of Agriculture and Domestic Science. After two full years of college work, the student will be transferred to the College of Education for the additional two years of work. If a student enters with advanced standing amounting to ninety hours, he will be assigned at once to the College of Education.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of 180 term hours under the restrictions and requirements prescribed below, the student will be recommended for the degree of Bachelor of Science in Education.

The subject which the student is preparing to teach will determine the election of the group of studies for the first two years. Each student is required to lay sufficiently broad foundations, during the first two years, in English, in two other languages to be chosen by himself, in mathematics and one science, or in two sciences to be chosen by himself, and in psychology and philosophy. In order to guard against the danger of too narrow or too wide a range of work, a maximum and a minimum number of departments is fixed in which the student is allowed to work during the first two years.

The 90 term hours required for the completion of the first two years must include the following 66 term hours:

(a) English 1. (2-2-2) 6 term hours.
and English 7 or 8. (3-3-3) 9 term hours.

(b) Two of the following languages: (8-8-8) 24 term hours.
Greek 1 or 7, 8, 9; Latin 1, 2, 3;
French 1 or 2; German 1 or 4; Spanish 1 or 2.

(c) Mathematics 31, 32, 33, and 24. (6-6-6) 18 term hours or
Two of the following: at least (6-6-6) 18 term hours.
Mathematics 21, 22, 23; Physics 11 or 2;
Chemistry 7 or 44; Botany 21, 22, 23; Zoology 31;
Geology 17; Physiology 1.

(d) Psychology 1 and Philosophy 101. (3-3-3) 9 term hours.

The major work of a student (the branch which he is preparing to teach) must begin not later than the Sophomore year, and where prerequisites do not interfere may be begun in the Freshman year. Students electing either Art, Domestic Science, or Manual Training as a major subject, may substitute credits in such subject not to exceed five credit hours per term, as a part of the sixty-six hours required above.

The 90 term hours required for the completion of the last two years must include the following:

FUNDAMENTAL COURSES

Educational Psychology, not less than 6 credit hours.
History of Education, not less than 9 credit hours.
Elements of Sociology, not less than 6 credit hours.

MAJOR COURSES

The major work elected in the first or second year—hours enough to satisfy the professor in charge that the scholarship warrants a recommendation for teaching.

PROFESSIONAL COURSES

The theory and practice of teaching the major subject—not less than six credit hours. Credit for this work may be given to experienced teachers.

OUTLINE BY YEARS

FRESHMAN YEAR

(a) Fifteen or sixteen hours each term, chosen from the prescribed work indicated above, including English 1.

(b) Cadet Service (men). Hygiene and Physical Training (women); required throughout the Freshman year.

SOPHOMORE YEAR

(a) Fifteen hours each term. This must include English 7 or 8; Psychology 1, Philosophy 101, and all other prescribed work necessary to make the sixty-six hours not done in the Freshman year; the other work of the Sophomore year to be in two or three departments of which at least one shall be a department in which the student has worked during the Freshman year.

(b) Cadet Service (men). Hygiene and Physical Training (women); required throughout the Sophomore year.

At the end of the Sophomore year the student is transferred to the College of Education. Students who bring from other approved colleges explicit and official certificates describing their courses of study and scholarship, and showing that they have completed the equivalent of the ninety hours of work prescribed above, will be admitted to the College of Education without conditions, subject to the rules of the Entrance Board. Similarly the work of the State Normal Schools of Ohio will be accredited, subject to the rules of the Entrance Board.

The work of the College of Education will consist of,

(a) Fundamental courses required of all students.

(b) Major courses in those subjects which the student expects to teach.

(c) Professional courses correlated with the major courses and designed to give practical instruction in the theory and practice of teaching the major subjects.

(d) Practice and observation work in public schools.

(e) Elective courses chosen from any departments of the University by the student upon the advice and approval of the Executive Committee of the College.

JUNIOR YEAR

Fifteen hours each term. This must include the major subject with a credit of from three to five hours each term; Sociology, six credit hours; Educational Psychology, six credit hours. The electives amounting to from six to eight hours each term may be chosen from any department of the University, subject to the approval of the Executive Committee of the College.

SENIOR YEAR

Fifteen hours each term. This must include a professional course in the major subject with two hours' credit each term, enough work in the major subject to complete the requirement in that branch, and History of Education, nine credit hours. The electives needed to complete the required number of hours for graduation may be chosen from any department of the University, subject to the approval of the Executive Committee of the College.

CERTIFICATE COURSES

Persons who cannot meet the full academic requirements for admission to the curriculum leading to the Bachelor's Degree, but who show an ability to carry a major subject in the professional curriculum, may be admitted as candidates for a certificate. Such students will be required to take the work of the fundamental courses, a major subject, the professional courses related to the major subject, and enough elective work to complete ninety hours. Upon the satisfactory completion of the work, they may be given certificates for the work done.

GRADUATE WORK

The graduate work of the College of Education is carried on under the immediate direction of the departments concerned. The administration of the work is in the hands of Professor Frank P. Graves, to whom all communications should be addressed.

OUTLINE FOR GENERAL COURSE

FIRST YEAR

First Term		Second Term		Third Term	
English (1)	2.	*English (1)*	2.	*English (1)*	2.
Group (b)	8.	Group (b)	8.	Group (b)	8.
Group (c)	6.	Group (c)	6.	Group (c)	6.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

English (7 or 8)	3.	*English (7 or 8)*	3.	*English (7 or 8)*	3.
Psychology (1)	3.	*Psychology (1)*	3.	*Philosophy (101)*	3.
Group (b)	4.	Group (b)	4.	Group (b)	4.
Major Work	3 to 5.	*Major Work*	3 to 5.	*Major Work*	3 to 5.
Elective	0 to 2.	Elective	0 to 2.	Elective	0 to 2.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Major Work	3 to 5.	*Major Work*	3 to 5.	*Major Work*	3 to 5.
Sociology (1)	3.	*Sociology (2)*	3.	*Eu. Hist. (3)*	3.
Psychology (2)	2.	*Psychology (2)*	2.	*Psychology (2)*	2.
Elective	5 to 7.	Elective	5 to 7.	Elective	5 to 7.

FOURTH YEAR

Professional Course and Practice	2.	*Professional Course and Practice*	2.	*Professional Course and Practice*	2.
Major Work	2 to 4.	Major Work	2 to 4.	Major Work	2 to 4.
Hist. of Ed.	3.	*Hist. of Ed.*	3.	*Hist. of Ed.*	3.
Elective	6 to 8.	Elective	6 to 8.	Elective	6 to 8.

Branches *italicized* are required. The groups indicated are those mentioned on p. 143.

The major study should be the study which the student expects to teach.

The electives should include one or two other studies which the student may teach.

COURSE IN ART

FIRST YEAR

First Term		Second Term		Third Term	
English (1)	2.	English (1)	2.	English (1)	2.
Language	4.	Language	4.	Language	4.
Art (10)	2.	Art (11)	2.	Art (12)	2.
Art (20)	2.	Art (21)	2.	Art (22)	2.
Zoology (1) or Botany (13)	3.	Zoology (1) or Botany (13)	3.	Zoology (1) or Botany (13)	3.
Elective	3.	Elective	3.	Elective	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
English (7 or 8)	3.	English (7 or 8)	3.	English (7 or 8)	3.
Psychology (1)	3.	Psychology (1)	3.	Philosophy (101)	3.
Language	4	Language	4.	Language	4.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Art (13)	2.	Art (14)	2.	Art (15)	2.
Art (35)	2.	Art (36)	2.	Art (37)	2.
Military Drill	1.	Military Drill	1.	Military Drill	1

THIRD YEAR

Sociology (1)	3.	Sociology (2)	3.	Eur. History (3)	3.
Psychology (2)	2.	Psychology (2)	2.	Psychology (2)	2.
Art (16)	3.	Art (17)	3.	Art (18)	3.
Art (40)	3.	Art (41)	3.	Art (42)	3.
Engineering Drawing (2)	3.	Engineering Drawing (40)	2.	Engineering Drawing (41)	2.
Elective	2.	Elective	2.	Elective	2.

FOURTH YEAR

Hist. of Ed. (1)	3.	Hist. of Ed. (1)	3.	Hist. of Ed. (1)	3.
Professional and Practice Work	2.	Professional and Practice Work	2.	Professional and Practice Work	2.
Art (50)	3.	Art (51)	3.	Art (52)	3.
Art (43)	4.	Art (44)	4.	Art (45)	4.
Elective	3.	Elective	3.	Elective	3.

COURSE IN DOMESTIC SCIENCE

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
English (1)	2.	English (1)	2.	English (1)	2.
Language	4.	Language	4.	Language	4.
Chemistry(7 or 44)	4.	Chemistry(7 or 44)	4.	Chemistry (12)	4.
Domestic Art (1)	2.	Domestic Art (2)	2.	Domestic Art (3)	2.
Zoology (1) or Botany (13)	3.	Zoology (1) or Botany (13)	3.	Zoology (1) or Botany (13)	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

Psychology (1)	3.	Psychology (1)	3.	Philosophy (101)	3.
Ag. Chemistry (14)	5.	Ag. Chemistry (14)	5.	Physiology (3)	3.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Art (10)	2.	Art (11)	2.	Art (12)	2.
Domestic Sci. (1)	4.	Domestic Sci. (2)	4.	Domestic Sci. (3)	4.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Sociology (1)	3.	Sociology (2)	3.	Eur. Hist. (3)	3.
Psychology (2)	2.	Psychology (2)	2.	Psychology (2)	2.
Drawing (20)	1.	Drawing (15)	1½.	Drawing (15)	1½.
Bacteriology (5)	4.	Bacteriology (7)	4.	Bacteriology (7)	4.
Domestic Sci. (4)	4.	Domestic Art (4)	4.	Domestic Art (5)	4.
Elective	2	Elective	2.	Elective	2.

FOURTH YEAR

First Term		Second Term		Third Term	
Hist. of Ed. (1)	3.	Hist. of Ed. (1)	3.	Hist. of Ed. (1)	3.
Professional and Practice Work	2.	Professional and Practice Work	2.	Professional and Practice Work	2.
Domestic Sci. (10)	3.	Domestic Sci. (11)	3.	Dom. Sci. (12)	3.
Domestic Sci. (13)	2.	Domestic Sci. (13)	2.	Domestic Sci. (13)	2.
Elective	5.	Elective	5.	Elective	5.

COURSE IN MANUAL TRAINING

FIRST YEAR

First Term		Second Term		Third Term	
English (1)	2.	English (1)	2.	English (1)	2.
Language	4.	Language	4.	Language	4.
Chemistry(7 or 44)	4.	Chemistry(7 or 44)	4.	Chemistry (12)	4.
Mathematics (21)	3.	Mathematics (22)	3	Mathematics (23)	3.
Drawing (27)	2.	Drawing (25)	1.	Drawing (26)	1.
		Drawing (31)	1.	Drawing (32)	2.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymasium	1.	Gymnasium	1.

SECOND YEAR

English (7 or 8)	3.	English (7 or 8)	3.	English (7 or 8)	3.
Language	4.	Language	4.	Language	4.
Psychology (1)	3	Psychology (1)	3.	Philosophy (101)	3.
Drawing (33)	3.	Drawing (34)	3.	Drawing (35)	3.
Shopwork (7)	3.	Shopwork (9)	3.	Shopwork (8)	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Sociology (1)	3.	Sociology (2)	3.	Eur. History (3)	3.
Psychology (2)	2.	Psychology (2)	2.	Psychology (2)	2.
Art (10)	2.	Art (11)	2.	Art (12)	2.
Shopwork (11)	3.	Shopwork (3)	3.	Shopwork (4)	3.
		Engineering		Engineering	
Elective	3.	Drawing (40)	2.	Drawing (41)	2.
				Architecture (33)	2.

FOURTH YEAR

Hist. of Educ. (1)	3.	Hist. of Educ. (1)	3.	Hist. of Educ. (1)	3.
Professional and Practice Work	2.	Professional and Practice Work	2.	Professional and Practice Work	2.
Shopwork (12)	3.	Shopwork (13)	3.	Shopwork (14)	3.
Elective	7.	Elective	7.	Elective	7.

COLLEGE OF ENGINEERING

COURSES OFFERED

This College offers instruction in nine important fields of engineering work. Covering these the following four-year courses of study are offered:

1. Architecture, leading to the degree of Civil Engineer in Architecture (C. E. in Arch.).
2. Ceramics, leading to the degree of Ceramic Engineer (Cer. E.).
3. Chemical Engineering, leading to the degree of Bachelor of Science in Chemical Engineering (B. Sc.).
4. Civil Engineering, leading to the degree of Civil Engineer (C. E.).
5. Electrical Engineering, leading to the degree of Mechanical Engineer in Electrical Engineering (M. E. in E. E.).
6. Industrial Arts, leading to the degree of Bachelor of Science in Industrial Arts (B. Sc.).
7. Manual Training, leading to the degree of Bachelor of Science in Industrial Arts (B. Sc.).
8. Mechanical Engineering, leading to the degree of Mechanical Engineer (M. E.).
9. Mine Engineering, leading to the degree of Engineer of Mines (E. M.).

The following two-year, or short courses, do not lead to a degree, but students completing them are furnished a formal certificate stating the work they have accomplished:

10. Clay-working.
11. Industrial Arts and Shopwork.
12. Mining.

FACULTY AND INSTRUCTORS

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University.

SIDNEY AUGUSTUS NORTON, Ph. D., LL. D., Emeritus Professor and Lecturer in Chemistry.

STILLMAN W. ROBINSON, C. E., D. Sc., Emeritus Professor of Mechanical Engineering.

ROBERT WHITE MCFARLAND, LL. D., Emeritus Professor of Civil Engineering.

FRANK ARNOLD RAY, E. M., DEAN and Professor of Mine Engineering.

JAMES ELLSWORTH BOYD, M. S., SECRETARY and Professor of Mechanics.

NATHANIEL WRIGHT LORD, E. M., Professor of Metallurgy and Mineralogy and Director of the School of Mines.

EDWARD ORTON, JR., E. M., Professor and Director of the Department of Clay-working and Ceramics.

BENJAMIN FRANKLIN THOMAS, Ph. D., Professor of Physics.

ROSSER DANIEL BOHANNAN, B. Sc., C. E., E. M., Professor of Mathematics.

BENJAMIN LESTER BOWEN, Ph. D., Professor of Romance Languages and Literatures.

*JOSEPH VILLIERS DENNEY, B. A., Professor of English.

WILLIAM THOMAS MAGRUDER, M. E., Professor of Mechanical Engineering.

WILLIAM MCPHERSON, JR., D. Sc., Ph. D., Professor of Chemistry.

JOSEPH NELSON BRADFORD, M. E., Professor of Architecture and Drawing.

FRANK EDWIN SANBORN, S. B., Professor and Director of the Department of Industrial Arts.

HENRY CURWEN LORD, B. Sc., F. R. A. S., Professor of Astronomy and Director of the Emerson McMillin Observatory.

EMBURY ASBURY HITCHCOCK, M. E., Professor of Experimental Engineering.

FRANCIS CARY CALDWELL, B. A., M. E., Professor of Electrical Engineering.

*CHARLES SMITH PROSSER, Ph. D., Professor of Geology.

CHRISTOPHER ELIAS SHERMAN, C. E., Professor of Civil Engineering.

LEWIS ADDISON RHOADES, Ph. D., Professor of Germanic Languages and Literatures.

FRANK HARVEY ENO, B. Sc., C. E., Professor of Municipal Engineering.

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*Absent on leave, 1907–1908.

THOMAS EWING FRENCH, M. E., Professor of Engineering Drawing.

GEORGE WASHINGTON MCCOARD, M. A., Associate Professor of Mathematics.

WILLIAM EDWARDS HENDERSON, Ph. D., Associate Professor of Chemistry.

CHARLES A. BRUCE, B. A., Associate Professor of the Romance Languages and Literatures.

CHARLES WILLIAM FOULK, B. A., Associate Professor of Chemistry.

G. A. ANDEREGG, A. M., Associate Professor of Electrical Engineering.

MATTHEW BROWN HAMMOND, Ph. D., Associate Professor of Economics and Sociology.

CLYDE T. MORRIS, C. E., Associate Professor of Civil Engineering.

KARL DALE SWARTZEL, B. Sc., Associate Professor of Mathematics.

EDWARD ELSWORTH SOMERMEIER, G. Ph., Associate Professor of Metallurgy and Mineralogy.

HARRY WALDO KUHN, Ph. D., Associate Professor of Mathematics.

FREDERICK EDWARD KESTER, Ph. D., Associate Professor of Physics.

WILLIAM ABNER KNIGHT, M. E., Assistant Professor of Machine-Shop Practise.

HORACE JUDD, M. E., M. Sc., Assistant Professor of Experimental Engineering.

EDWIN F. CODDINGTON, Ph. D., Assistant Professor of Mechanics.

ROBERT F. EARHART, Ph. D., Assistant Professor of Physics.

WILLIAM LLOYD EVANS, Ph. D., Assistant Professor of Chemistry.

CARSON SAMUEL DUNCAN, M. S., Assistant Professor of English.

GEORGE D. HUBBARD, Ph. D., Assistant Professor of Geology.

ROY K. SCHLAFLY, C. E., Assistant Professor of Civil Engineering.

BERTHOLD AUGUST EISENLOHR, M. A., Assistant Professor of the Germanic Languages and Literatures.

SAMUEL EUGENE RASOR, B. Sc., Assistant Professor of Mathematics.

THOMAS KENYON LEWIS, B. Sc., Assistant Professor of Engineering Drawing.

JAMES RENWICK WITHROW, Ph. D., Assistant Professor of Chemistry.

JOHN HERMAN HUNT, B. S. in E. E., Assistant Professor in Electrical Engineering.

ROSS C. PURDY, Assistant Professor of Clay-working and Ceramics.

CHARLES ST. JOHN CHUBB, JR., C. E. (Arch.), Assistant Professor of Architecture.

ADMISSION

Applicants for admission must be at least seventeen years of age.

REQUIREMENTS BY UNITS

Applicants to be admitted to full standing must obtain credit by examination or certificate for fifteen units, chosen from the five groups which follow, subject to the restrictions stated therein. (A unit is a course of study covering a school year of not less than thirty-five weeks, with five periods of at least forty-five minutes each per week.) No one under twenty-one years of age* will be admitted on less than thirteen units.

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*A person twenty-one years of age, or over, who desires to pursue a special line of work and does not intend to become a candidate for a degree, may be admitted by vote of the Executive Committee to such classes as he is qualified to enter; provided, that if he afterwards becomes a candidate for a degree he must pass the requirements for admission at least one year before the degree is conferred. See "Admission to Special Studies."

(A) ENGLISH GROUP

Two units are required in this group. An applicant presenting one unit in this group will be admitted *conditionally*, if his arrearage in all of the groups does not exceed two units. All arreages must be made good within two years after admission. Preparation in excess of two units in this group may be offered in lieu of the extra units of group (E).

English Composition and Rhetoric.....1 unit
English Classics.....1 unit
English Literature.....1 unit

(B) HISTORY GROUP

Two units are required in this group. An applicant presenting one unit in this group will be admitted *conditionally*, if his arrearage in all of the groups does not exceed two units. All arrearages must be made good within two years after admission. Preparation in excess of two units in this group may be offered in lieu of the extra units of group (E).

Civil Government.....½ unit
United States History.....½ or 1 unit
Mediaeval and Modern or Gen'l Hist'y1 or ½ unit
Greek and Roman History.....1 or ½ unit
English History.....½ or 1 unit

(C) MATHEMATICS GROUP

Three units are required in this group. An applicant presenting two and one-half units in this group will be admitted *conditionally*, if his arrearage in all of the groups does not exceed two units. All arrearages must be made good within two years after admission.

Algebra (through quadratics).....1 unit
Algebra (beyond quadratics).....½ unit
Geometry (plane).....1 unit
Geometry (solid and spherical).....½ unit

(D) SCIENCE GROUP

Two units are required in this group, including physics. An applicant presenting one unit in this group will be admitted *conditionally*, if his arrearage in all of the groups does not exceed two units. All arrearages must be made good within two years after admission. Preparation in excess of two units in this group may be offered in lieu of the extra units of group (E).

Physics.....1 unit
Physical Geography.....½ or 1 unit
Botany.....½ or 1 unit
Chemistry.....1 unit
Physiology.....½ unit
Zoology.....½ or 1 unit
Geology.....½ unit
Astronomy.....½ unit

(E) FOREIGN LANGUAGE GROUP

Six units are required in this group; or two extra units from the preceding groups, and four* units from this. A deficiency of two units is allowed in this group if the total arrearage in all of the groups does not exceed two units. All arrearages must be made good within two years after admission.

Applicants who have had not less than two years of technical experience acceptable to the executive committee may have such experience substituted for not more than two units of the entrance requirements in foreign languages.

Latin.....2, 3, or 4 units
Greek.....2, 3, or 4 units
German.....2, 3, or 4 units
French.....2, 3, or 4 units
Spanish.....2, 3, or 4 units

A single unit in a foreign language will not be counted toward entrance.

An applicant twenty-one years of age or over, who is deficient in foreign language training will be admitted with a total deficiency of four units, provided at least two of the four are in the foreign language group.

The extent and character of the work required in each subject mentioned above is indicated on page 95 and following.

REMOVAL TO ENTRANCE CONDITIONS

The removal of entrance conditions is administered by the Entrance Board. Conditions may be removed (1) by examination (for schedule of examinations see page 91), or (2) by the substitution of excess work in other approved subjects; or (3) by the substitution of other equivalent

* For the year 1908–09 an extra unit from any other group will be substituted for one of the four required units in this group.

work to be done at the University at such times and in such subjects as the Entrance Board shall direct. All entrance conditions must be removed before the beginning of the third year of residence at the University, and a condition in Physics before the beginning of the second year.

ADMISSION TO THE SHORT COURSES

Applicants must be at least seventeen years of age, and, unless they are over twenty-one years of age, must pass examinations in Arithmetic and Geography, and must be able to write a business letter or a short theme, correct in grammar and orthography; or they must present satisfactory certificates showing that they have successfully pursued these subjects elsewhere. In addition, each applicant under twenty-one years of age must present a letter or certificate showing that he has had at least one year's practical experience in some industry related to the course which he wishes to pursue.

Applicants over twenty-one years of age are admitted without examination, and without letter or certificate of practical experience.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work in this College and do not desire to become candidates for degrees, will be admitted on the conditions as stated on page 94.

ADMISSION TO ADVANCED STANDING

For admission to advanced standing in this College see requirements as stated on page 93.

ADMISSION TO GRADUATE WORK

For admission to graduate work in this College see statement on page 95.

OUTLINE OF COURSES

OUTLINE OF THE FIRST YEAR'S WORK OF ALL FOUR-YEAR COURSES

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

FIRST TERM		SECOND TERM		THIRD TERM	
Mathematics (31) Algebra.	5.	Mathematics (32) Trigonometry.	5.	Mathematics (33) Analytics.	5.
Chemistry (7 or 44) Inorganic.	4.	Chemistry (7 or 44) Inorganic.	4.	Chemistry (12) Qualitative Analysis.	4.
Modern Language French, Ger. or Span.	4.	Modern Language French, Ger. or Span.	4.	Modern Language French, Ger. or Span.	4.
English (1) Composition.	2.	English (1) Composition.	2.	English (1) Composition.	2.
Drawing (27) Freehand.	2.	Drawing (25) Freehand.	1.	Drawing (26) Freehand.	1.
		Drawing (31) Geometric	1.	Drawing (32) Lettering.	2.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

Students presenting Chemistry as an entrance subject will take Chemistry 44.

SUMMER TERM IN SHOPWORK—Students electing courses named below are required to take Shopwork courses in the summer term as follows:

Chemical Engineering—Shopwork (7) and (11) at the close of the first or second year.

Ceramics, Electrical Engineering, and Mechanical Engineering —Two from Shopwork (4), (7), and (11), at the close of the first year.

Industrial Arts—Shopwork (7) and (11), at the close of the first year.

ARCHITECTURE (For first year see page 156)

Degree: Civil Engineer

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Architecture (9) Hist. of Architecture.	3.	Architecture (10) Hist. of Architecture.	3.	Architecture (11) Hist. of Architecture.	3.
Architecture (12) The Orders.	2.	Architecture (13) Order Problems	3.	Architecture (14) Order Problems.	3.
Drawing (33) Projections.	3.	Drawing (36) Descriptive Geom.	5.	Architecture (26) Arch. Perspective.	5.
Drawing (42) Charcoal Drawing from Arch. Ornament.	2	Drawing (14) Pen Drawing.	2.	Drawing (14) Pen Drawing.	2.
Mathematics (41) Calculus.	5.	Mathematics (42) Calculus.	5.	Mathematics (43) Calculus.	5.
Physics (2) Mechanics, Heat.	3.				
Military Drill	1.	Military Drill	1.	Military Drill	1.

SUMMER WORK

THIRD YEAR

Architecture (5) Decoration, etc.	3.	Architecture (23) Designing.	4.	Architecture (17) Designing.	4.
Architecture (15) Designing.	4.	Architecture (27) Arch. Stereotomy.	4.	Architecture (24) Structural Details.	3.
Architecture (22) Arch. Composition.	2.	Drawing (18) Water Color.	2.	Drawing (19) Water Color.	2.
Architecture (33) Photography.	2.	Drawing (40) Clay Modeling.	2.	Drawing (41) Clay Modeling.	2.
English (3) Brief-Making.	2.	English (3) Brief-Making.	2.	English (3) Brief-Making.	2.
Mechanics (1) Statics.	5.	Mechanics (2) Str'n'th Mat'ls.	5	Civil Eng. (19) Trusses.	5.

SUMMER WORK

FOURTH YEAR

Architecture (18) Designing.	4.	Architecture (4) Specifications.	2.	Architecture (28) Estimating.	2.
Architecture (25) Plumbing.	2.	Architecture (21) Designing.	4.	Architecture (29) Professional Pract.	2.
Architecture (30) Monumental Design.	3.			Architecture (20) Thesis.	5.
Drawing (43) Charcoal Drawing from Antique.	2.			Architecture (19)	4.
Civil Eng. (34) Masonry.	3.	Civil Eng. (28) Steel Construction.	5.	Civil Eng. (21) Surveying.	3.
Mech. Eng. (23) Materials of Const'n.	4.	Civil Eng. (29) Cement Work.	3.		
		Mech. Eng. (42) Heating and Vent'ng.	3.		

THESIS

CERAMIC ENGINEERING (For first year see page 156)

Degree: Ceramic Engineer

SUMMER TERM.—Students are required to take *two* of the following courses in shopwork in the summer term at the close of the first year: Shopwork (4), (7), and (11).

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (33) Projections.	3.	Drawing (34) Descriptive Geom.	3.	Drawing (39) Drafting, etc.	3.
Mathematics (41) Calculus.	5.	Mathematics (42). Calculus.	5.	Mathematics (43) Calculus.	5.
Physics (2) Mechanics, Heat.	3.	Physics (2) Elect'y, Magnetism.	3.	Physics (2) Light, Sound.	3.
Physics (3) Problems.	2.	Physics (3) Problems.	2.	Physics (3) Problems.	2.
Ceramics (1) Laboratory.	5.	Ceramics (2) Laboratory.	5.	Ceramics (3) Laboratory.	3.
				Ceramics (24) Ceramic Calculation.	2.
Military Drill	1.	Miltiary Drill	1.	Military Drill	1.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Str'n'th Mat'ls, Kinet.	5.	Mech. Eng. (43) Mechanism.	5.
Ceramics (4) Raw Materials.	5.	Ceramics (5) Clay Products.	5.	Ceramics (6) Clay Products.	5.
Mine Eng. (4) Mine Surveying.	5.	Chemistry (30) Phys. Chem. Lectures.	3.	Ceramics (26) Phys. Chem. Meas.	5.
English (3) Brief-Making.	2.	English (3) Brief-Making.	2.	English (3) Brief-Making.	2.
		Ceramics (25) Identification of Clays.	2.		

FOURTH YEAR

Ceramics (9) Manf. of Bodies.	5.	Ceramics (10) Glasses and Glazes.	5.	*Ceramics (11) Enamels, Colors.	5.
Metallurgy (4) Fuels and Iron.	5	Civil Eng. (19) Trusses.	5.	*Ceramics (12) Cement.	5.
Geology (2) General.	5.	Geology (6) Economic.	3.	Ceramics (15) Thesis Work.	5.
		Geology (7) Petrography.	2.	Mech. Eng. (36) Laboratory.	5.
Architecture (33) Photography.	2.	Drawing (22) Technical Draw.	2.	Drawing (23) Technical Draw.	2.
		THESIS			

* Students are to elect Ceramics (11) or (12).

CHEMICAL ENGINEERING (For first year see page 156)

Degree: Bachelor of Science

SUMMER TERM.—Shopwork Courses (7) 3 and (11) 3 are to be taken in the summer term at the close of the first or second year.

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (20)	4.	Chemistry (20)	4.	Chemistry (20)	4.
Chemistry (21)	2	Chemistry (21)	2.	Chemistry (21)	2.
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mathematics (41)	5.	Mathematics (42)	5.	Mathematics (43)	5.
Drawing (33)	3.	Drawing (34)	3.	Metallurgy (2)	3.
Chemistry (40)	1.	Chemistry (40)	1.		
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

English (3)	2.	English (3)	2.	English (3)	2.
Mechanics (1)	5.	Mechanics (2)	5.	Mechanics (3)	5.
Drawing (21)	2.	Drawing (22)	2.	Drawing (23)	2.
Chemistry (46)	2.			Mech. Eng. (32)	5.
Chemistry (47)	2.				
Metallurgy (4)	5.				
		Chemistry (46)	2.	Chemistry (46)	2.
*Optional Work.		Chemistry (47)	2.	Chemistry (47)	2.
GROUP I.		Chemistry (15)	4.		
*Optional Work.		Metallurgy (4)	5.		
GROUP II.		Metallurgy (6)	5.	Metallurgy (5)	5.

*Students wishing to specialize in metallurgical chemistry will elect Group II as their option; all others will elect Group I.

FOURTH YEAR

Chemistry (32)	4.	Chemistry (32)	4.	Chemistry (71)	4.
Mech. Eng. (18)	5.	Mech. Eng. (18)	5.	Mech. Eng. (19)	5.
Chemistry (30)	3.	Chemistry (30)	3.		
Elec. Eng. (7)	2.				
Elec. Eng. (6)	2.				
*Electives Including Thesis.	2.	*Electives Including Thesis.	6.	*Electives Including Thesis.	9.

Chemistry 78 or 79 is taken at the end of the first or second term.

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*These electives must be approved by the head of the Department of Chemistry, or in case of those students specializing in metallurgical Chemistry, by the head of the Department of Metallurgy.

CIVIL ENGINEERING (For first year see page 156)

Degree: Civil Engineer

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (33) Projections.	3.	Drawing (36) Descriptive Geom.	5.	Drawing (35) Shades, Shadows.	3.
Mathematics (41) Calculus.	5.	Mathematics (42) Calculus.	5.	Mathematics (43) Calculus.	5
Physics (2) Mechanics, Heat.	3.	Physics (2) Elect'y, Magnetism.	3.	Physics (2) Light, Sound.	3.
Civil Eng. (30) Surveying.	5.	Civil Eng. (4) Topog. Drawing.	4.	Civil Eng. (32) Railroad Survey	5.
Civil Eng. (31) Field Practise.	1.			Civil Eng. (33) Field Practise.	1.
Military Drill	1.	Military Drill	1.	Military Drill	1.

SUMMER COURSE.—Civil Engineering (22) 4 weeks, of 6 days per week. Field work in surveying.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Str'n'th Mat'ls, Kinet.	5.	Mechanics (3) Kinetics, Hydraulics.	5.
Civil Eng. (3) Topog. Surveying.	4.	Civil Eng. (24) Timber Construction.	5.	Civil Eng. (7) Bridge Stresses.	5.
Civil Eng. (16) Roads and Streets.	5.	Civil Eng. (6) Stereotomy.	4.	Architecture (33) Photography.	2.
Astronomy (4) Mathematical.	3.	Astronomy (5) Mathematical.	3.	Astronomy (6) Mathematical.	4.
English (3) Brief-Making.	2.	English (3) Brief-Making.	2.	English (3) Brief-Making.	2.

SUMMER COURSE.—Civil Engineering (23) 4 weeks, of 6 days per week. Field work in advanced surveying.

FOURTH YEAR

Civil Eng. (8) Bridge Designing.	5.	*Civil Eng. (17) Railways.	5.	Civil Eng. (18) Water Supply.	5.
		*Civil Eng. (25) Adv. Bridge Work.	5.	Civil Eng. (10) Sanitary Eng.	5.
		Civil Eng. (14) Cement Testing.	2.		
Civil Eng. (34) Masonry Constr.	3.	Civil Eng. (35) Masonry Structures.	3.		
Elec. Eng. (6 & 7) Lectures and Lab.	4	Mech. Eng. (17) Laboratory.	3.	Mech. Eng. (25) Laboratory.	5.
Geology (2) General.	5.	Geology (6) Economic.	3.		
		THESIS			

* Students are to elect either Civil Engineering (17) or Civil Engineering (25).

ELECTRICAL ENGINEERING (For 1st year see page 156)

Degree: Mechanical Engineer

SUMMER TERM.—Students are required to take *two* of the following courses in shopwork in the summer term at the close of the first year: Shopwork (4), (7), and (11).

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (33) Projections.	3.	Drawing (34) Descriptive Geom.	3.	Drawing (35) Shades, Shadows.	3.
Mathematics (41) Calculus.	5.	Mathematics (42) Calculus.	5.	Mathematics (43) Calculus.	5.
Physics (2) Mechanics, Heat.	3.	Physics (2) Elect'y, Magnetism.	3.	Physics (2) Light, Sound.	3.
Physics (3) Problems.	2.	Physics (3) Problems.	2.	Physics (3) Problems.	2.
Shop (4, 7, or 11)	3.	Shopwork (13) Machine Work.	3.	Physics (5) Laboratory.	4.
English (3) Brief-Making.	2.	English (3) Brief-Making.	2.	English (3) Brief-Making.	2.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Str'n'th Mat'ls, Kinet.	5.	Mechanics (3) Kinetics, Hydraulics.	5.
Physics (6) Laboratory.	5.	Physics (6) Laboratory.	5.	Mech. Eng. (32) Power Plants.	5.
Physics (4) Elect'y, Magnetism	3.	Mech. Eng. (37) Mechanism.	4.	Mech. Eng. (28) Laboratory.	2.
Shopwork (14) Machine Work.	3.	Elec. Eng. (8) D. C. Machinery.	4.	Elec. Eng. (9) Laboratory.	4.
Drawing (5) Techincal.	3.			Elec. Eng. (15) A. C. Machinery.	2.

Elec. Eng. (20), (21), (22), or (23) is taken at the end of the winter term.

FOURTH YEAR

Elec. Eng. (16) A. C. Machinery.	3.	Elec. Eng. (17) A. C. Machinery.	2.	Elec. Eng. (19) Designing.	4.
Elec. Eng. (11) Laboratory.	3.	Elec. Eng. (11) Laboratory.	3.	Elec. Eng. (11) Laboratory.	3.
Mech. Eng. (33) Engines and Boilers.	5.	Elec. Eng. (18) Elec. Design.	3.	Elec. Eng. (25) Transmission.	2.
Mech. Eng. (29) Laboratory.	3.	Elec. Eng. (24) Applications.	2.	*Elec. Eng. (26) Railways.	3.
		Mech. Eng. (30) Laboratory.	2.	*Elec. Eng. (27) Telephony.	3
		Ind. Arts (9) Mach. Design.	2.	*Elec. Eng. (28) Illumination.	3.
**Elective	3–5.	**Elective	3–5.	**Elective	3–5.

Elec. Eng. (20), (21), (22), or (23) is taken at the end of the winter term.

THESIS

*Alternative Course.

** Subject to the approval of the professor of Electrical Engineering.

INDUSTRIAL ARTS (For first year see page 156)

Degree: Bachelor of Science

SUMMER TERM.—Shopwork Courses (7) 3 and (11) 3 are to be taken in the summer term at the close of the first year.

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (33) Projections.	3.	Drawing (34) Descriptive Geom.	3.	Drawing (35) Shades, Shadows.	3.
Physics (2) Mechanics, Heat.	3.	Physics (2) Elect. Magnetism	3.	Physics (2) Light, Sound.	3.
Physics (3) Problems.	2.	Physics (3) Problems.	2.	Physics (3) Problems.	2.
Mathematics (41)	5.				
Shopwork (3) Foundry.	2.	Shopwork (9) Adv. Pattern Making.	3.	Shopwork (4) Chipping and Filing.	3.
Economics (33) Ele. of Pol. Econ.	3.	Economics (33) Ele. of Pol. Econ.	3.	Economics (33) Ele. of Pol. Econ.	3.
		Economics (57) American Industries.	3.	Economics (57) American Industries.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Drawing (5) Technical.	3.	Ind. Arts (2) Designing.	3.	Ind. Arts (2) Designing.	3.
Ind. Arts (1) Tools and Machines.	3.	Ind. Arts (1) Tools and Machines.	3.	Ind. Arts (1) Tools and Machines.	3.
Shopwork (13) Machine Work.	3.	Shopwork (14) Machine Work.	3.	Shopwork (15) Machine Work.	3.
Metallurgy (4) Fuels and Iron.	5.	Metallurgy (4) Steel.	2.	Mech. Eng. (32) Power Plants.	5.
Economics (48) Account and Statistics.	2.	Economics (48) Account and Statistics.	2.	Economics (48) Account and Statistics.	2.
English (3)	2.	English (3)	2.	English (3)	2.
		Civil Eng. (27) Timber and Masonry.	3.		

FOURTH YEAR

Shopwork (16) Adv. Mach. Work.	3.	Elec. Eng. (6) Lectures.	2.	Shopwork (17) Adv. Mach. Work.	3.
Elec. Eng. (6) Lectures.	2.				
Elec. Eng. (7) Laboratory.	2.	Elec. Eng. (7) Laboratory.	2.	Civil Eng. (21) Surveying.	3.
Ind. Arts (3) Shop Equipment.	3.	Ind. Arts (3) Shop Appliances.	3.	Ind. Arts (3) Shop Management.	3.
Ind. Arts (4) Adv. Designing.	3.	Ind. Arts (4) Adv. Designing.	3.	Ind. Arts (4) Adv. Designing.	3.
Mech. Eng. (12) Laboratory.	2.	Mech. Eng. (29) Laboratory.	2.	Mech. Eng. (30) Laboratory.	2.
Economics (37) Ind. Org'nizat'n, etc.	3.	Economics (38) Ind. Concen., etc.	3.	Economics (39) Lab. Organ, etc.	3.
		Elective	3.		

THESIS

MANUAL TRAINING (For first year see page 156)

Degree: Bachelor of Science

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (33) Projections.	3.	Drawing (34) Descriptive Geom.	3.	Drawing (35) Shades, Shadows.	3.
Physics (2) Mechanics, Heat.	3.	Physics (2) Elect'y, Magnetism.	3.	Physics (2) Light, Sound.	3.
Physics (3) Problems.	2.	Physics (3) Problems.	2.	Physics (3) Problems.	2.
Shopwork (7) Woodwork.	3.	Shopwork (9) Adv. Pattern M'k'g.	3.	Shopwork (8) Cabinet Work.	3.
Shopwork (3) Foundry.	3.	Shopwork (11) Forging.	3.	Shopwork (12) Adv. Forging.	3.
English (3) Brief-Making.	2.	English (3) Brief-Making.	2.	English (3) Brief-Making.	2.
Education (1) Elem. Psychology.	3.	Education (1) Elem. Psychology.	3.	Education (1) Elem. Psychology.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Drawing (5) Technical.	3.	Ind. Arts (2) Designing.	3.	Ind. Arts (2) Designing.	3.
Ind. Arts (1) Tools and Machines.	3.	Ind. Arts (1) Tools and Machines.	3.	Ind. Arts (1) Tools and Machines.	3.
Shopwork (4) Chipping, Filing.	3.	Shopwork (13) Machine Work.	3.	Shopwork (14) Machine Work.	3.
History (1) U. S. Political.	3.	History (1) U. S. Political	3.	History (1) U. S. Political.	3.
*Chemistry (20) Quantitative.	4.	*Chemistry (20) Quantitative.	4.	*Chemistry (20) Quantitative.	4.
*Chemistry (21) Physical.	2.	*Chemistry (21) Physical.	2.	*Chemistry (21) Physical.	2.
*Physics (5) Laboratory.	5.	*Physics (5) Laboratory.	5.	*Physics (5) Laboratory.	5.

FOURTH YEAR

Shopwork (15) Adv. Mach. Work.	3.	Shopwork (16) Adv. Machnie Work.	3.	Mech. Eng. (32) Power Plants.	5.
Elec. Eng. (6) Lectures.	2.	Elec. Eng. (6) Lectures.	2.	Mech. Eng. (28) Laboratory.	2.
Elec. Eng. (7) Laboratory.	2.	Elec. Eng. (7) Laboratory.	2.		
Education (5) Science of Educ.	3.	Education (5) Science of Educ.	3.	Education (5) Science of Educ.	3.
Polit. Science (1) Pol. Inst. of U. S.	3.				
Electives	2–5.	Electives	5–7.	Electives	5–7.
		THESIS			

* Students take either Chemistry (20) and (21) or Physics (5).

MECHANICAL ENGINEERING (For first year see p. 156)

Degree: Mechanical Engineer

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

SECOND YEAR

SUMMER TERM.—Students are required to take *two* of the following courses in shopwork in the summer term at the close of the first year: Shopwork (4), (7), and (11).

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (33) Projections.	3.	Drawing (34) Descriptive Geom.	3.	Drawing (35) Shades, Shadows.	3.
Mathematics (41) Calculus.	5.	Mathematics (42) Calculus.	5.	Mathematics (43) Calculus.	5.
Physics (2) Mechanics, Heat.	3.	Physics (2) Elect'y, Magnetism.	3.	Physics (2) Light, Sound.	3.
Shopwork (3) Foundry.	2.	Physics (7) Laboratory.	2.	Physics (7) Laboratory.	3.
English (3) Brief-Making.	2.	English (3) Brief-Making.	2.	English (3) Brief-Making.	2.
Shopwork (4, 7, 9, or 11)	3.	Shopwork (4, 9, or 11)	3.	Shopwork (13) Machine Work.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Str'n'th Mat'ls, Kinet.	5.	Mechanics (3) Kinetics, Hydraulics.	5.
Mech. Eng. (12) Laboratory.	2.	Mech. Eng. (3) Mechanism.	5.	Mech. Eng. (3) Mechanism.	2.
Drawing (5) Technical.	3.	Civil Eng. (27) Timber. Masonry.	3.	Architecture (33) Photography.	2.
Metallurgy (4) Fuels and Iron.	5.	Metallurgy (4) Steel.	2.	Civil Eng. (19) Trusses.	5.
Shopwork (14) Machine Work.	3.	Shopwork (15) Adv. Machine Work.	4.	Mech. Eng. (32) Power Plants.	5.
Mathematics (11) Diff. Equations.	1.				

Mech. Eng. (38), (39), (40), or (41) is taken at the end of the winter term.

FOURTH YEAR

Mech. Eng. (33) Engines and Boilers.	5.	Mech. Eng. (34) Thermodynamics.	5.	Mech. Eng. (21) Thesis.	5.
Mech. Eng. (27) Laboratory.	5.	Mech. Eng. (14) Laboratory.	4.	Mech. Eng. (15) Laboratory.	3.
Mech. Eng. (18) Machine Design.	5.	Mech. Eng. (18) Machine Design.	5.	Mech. Eng. (19) Machine Design.	5.
Elec. Eng. (6) Lectures.	2.	Elec. Eng. (6) Lectures.	2.	Mech. Eng. (31) Hydraulic Mach.	3.
Elec. Eng. (7) Laboratory.	2.	Elec. Eng. (7) Laboratory.	2.	Ind. Arts (5) Shop Appliances.	3.

THESIS

Mech. Eng. (38), (39), (40), or (41) is taken at the end of the winter term.

MINE ENGINEERING (For first year see page 156)

Degree: Engineer of Mines

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (33) Projections.	3.	Drawing (34) Descriptive Geom.	3.	Drawing (35) Shades, Shadows.	3.
Mathematics (41) Calculus.	5.	Mathematics (42) Calculus.	5.	Mathematics (43) Calculus.	5.
Physics (2) Mechanics, Heat.	3.	Physics (2) Elect'y, Magnetism.	3.	Physics (2) Light, Sound.	3.
Metallurgy (5) Laboratory.	5.	Metallurgy (5) Laboratory.	5.	Metallurgy (5) Laboratory.	5.
Shopwork (7) Woodwork.	2.	Shopwork (11) Forging.	2.	Metallurgy (2) Mineralogy.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Str'n'th Mat'ls, Kinet.	5.	Mechanics (3) Kinetics, Hydraulics.	5.
Metallurgy (4) Fuels and Iron.	5.	Metallurgy (4) General.	5.	Metallurgy (3) Deter. Mineralogy.	5.
Mine Eng. (4) Mine Surveying.	5.	Metallurgy (6) Assaying.	5.	Civil Eng. (19) Trusses.	5.
English (3) Brief-Making.	2.	English (3) Brief-Making.	2.	English (3) Brief-Making.	2.
		Mine Eng. (7) Surveying.	1.		

FOURTH YEAR

Mine Eng. (5) Mine Engineering.	5.	Mine Eng. (5) Mine Engineering.	5.	Mine Eng. (5) Mine Engineering.	5.
Geology (2) General.	5.	Geology (6) Economic.	3.	Mech. Eng. (36) Laboratory.	5.
Metallurgy (8) Ore Dressing.	2.	Metallurgy (7) Metal Construction.	3.	Mine Eng. (6) Plans and Spec.	5.
Elec. Eng. (6) Lectures.	2.	Elec. Eng. (6) Lectures.	2.	Architecture (33) Photography.	2.
Elec. Eng. (7) Laboratory.	2.	Elec. Eng. (7) Laboratory.	2.		
		Geology (7) Petrography.	2.		

THESIS

SHORT COURSE IN CLAY-WORKING

FIRST YEAR

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (3) Inorganic.	4.	Chemistry (3) Inorganic.	4.	Chemistry (45) Quantitative.	4.
Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.
Mathematics (3). Plane Geom.	5.	Mathematics (13) Space Geom.	5.	Mathematics (14) Trigonometry.	5.
Drawing (2) Lettering.	3.	Drawing (38) Projections.	3.	Drawing (39) Drafting.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SUMMER TERM—Students are required to take Shopwork (7) and (11) in the summer term at the end of the first year. But they may be excused from this where they are able to obtain positions in some ceramic establishment for the summer; and on presentation of a satisfactory certificate, endorsed by the head of the department, work in a ceramic factory during the summer may be counted as equivalent to the summer shop course.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Ceramics (1) Laboratory.	5.	Ceramics (2) Laboratory.	5.	Ceramics (19) Laboratory.	5.
Ceramics (4) Lectures.	5.	Ceramics (5) Lectures.	5.	Ceramics (6) Lectures.	5.
Physics (1) Elementary.	5.	Physics (1) Elementary.	5.	Ceramics (23) Laboratory.	7.
Ceramics (20) Laboratory.	2.	Ceramics (21) Laboratory.	2.		
Military Drill	1.	Military Drill	1.	Military Drill	1.

SHORT COURSE IN INDUSTRIAL ARTS

FIRST YEAR

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (24) Freehand.	1.	Drawing (25) Freehand.	1.	Drawing (26) Freehand.	1.
Drawing (2) Lettering.	3.	Drawing (38) Projections.	3.	Drawing (39) Drafting.	3.
Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.
Mathematics (3) Plane Geometry.	5.	Mathematics (13) Space Geometry.	5.	Mathematics (14) Trigonometry.	5.
Shopwork (7) Pattern Making.	3.	Shopwork (9) Adv. Pattern M'k'g.	3.	Shopwork (11) Forging.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Ind. Arts (8) Machine Drawing.	3.	Drawing (34) Descriptive Geom.	3.	Drawing (35) Shades, Shadows.	3.
Ind. Arts (1) Tools, Machines.	3.	Ind. Arts (1) Tools, Machines.	3.	Ind. Arts (1) Tools, Machines.	3.
Physics (1) Elementary.	5.	Physics (1) Elementary.	5.	Geology (1) Phys. Geography.	5.
Shopwork (4) Chipping, Filing.	3.	Shopwork (13) Machine Work.	3.	Shopwork (14) Adv. Machine Work.	3.
Shopwork (3) Foundry.	2.	Ind. Arts (2) Designing.	3.	Ind. Arts (2) Designing.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

SHORT COURSE IN MINING

FIRST YEAR

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

FIRST TERM		SECOND TERM		THIRD TERM	
Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.
Mathematics (3) Geometry.	5.	Mathematics (13) Space Geometry.	5.	Mathematics (14) Trigonometry.	5.
Physics (1) Elementary.	5.	Physics (1) Elementary.	5.	Geology (1) Phys. Geography.	5.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

FIRST TERM		SECOND YEAR		THIRD TERM	
Drawing (2) Lettering.	3.	Drawing (38) Projections.	3.	Drawing (39) Drafting.	3.
Drawing (27) Freehand.	2.	Geology (4) Elementary.	5.	Shopwork (11) Forging.	3.
Chemistry (3) Inorganic.	4.	Chemistry (3) Inorganic.	4.	Metallurgy (9) Mineral Chemistry.	5.
Mine Eng. (1) Mine Surveying.	5.	Mine Eng. (2) Ventilat. Haulage.	5.	Mine Eng. (3) Mine Operating.	5.
		Mine Eng. (7) Surveying.	1.		
Military Drill	1.	Military Drill	1.	Military Drill	1.

COLLEGE OF LAW

FACULTY

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University, University Grounds.

*JOSEPH H. OUTHWAITE, Professor of Law and DEAN.

GEORGE W. KNIGHT, PH. D., Professor of Law and ACTING DEAN.

EMILIUS O. RANDALL, PH. B., LL. M., Professor of Law, 257 Woodland Avenue; Supreme Court Building.

EDGAR B. KINKEAD, A. M., Professor of Law, 1944 Iuka Avenue; 1201 New Hayden Building.

WILLIAM HERBERT PAGE, B. A., LL. M., Professor of Law and SECRETARY of Law Faculty, 1068 Franklin Avenue; 27 Board of Trade.

JOHN A. SCHAUCK, M. A., LL. D., Professor of Law, 95 Winner Avenue; Supreme Court Building.

GILBERT H. STEWART, A. B., Professor of Law, 916 Madison Avenue; 1109 Wyandotte Building.

EDMOND B. DILLON, M. A., Professor of Law, 83 Wilson Avenue; Court House.

JAMES M. BUTLER, LL. B., Professor of Law, 195 East Town Street; Columbus Savings and Trust Building.

†WADE H. ELLIS, LL. D., Professor of Law, Hartman Hotel; State House.

GEORGE W. RIGHTMIRE, M. A., Professor of Law, Tenth Avenue; 44 East Broad Street.

ALONZO H. TUTTLE, M. A., LL. B., Professor of Law, 316 West Seventh Avenue.

LEWIS C. LAYLIN, Professor of Law, 203 West Tenth Avenue.

CARMI A. THOMPSON, B. Ph., LL. B., Professor of Law, 374 West Sixth Avenue.

CHARLES E. BLANCHARD, LL. B., Instructor in Oratory and Debate; 185 W. Frambes Avenue: 1015 Columbus Savings and Trust Building.

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* Died, December 9, 1907.

†Resigned, January 1, 1908.

ORGANIZATION

The College of Law offers a course of study leading to the degree of Bachelor of Laws, and in connection with the College of Arts, Philosophy, and Science a combined course leading to the degree of Bachelor of Laws and Bachelor of Arts in six years.

ADMISSION

GENERAL REQUIREMENT

Applicants for admission must be at least eighteen years of age.

REQUIREMENTS BY UNITS*

Applicants to be admitted to full standing must obtain credit by examination or certificate for thirteen units, chosen from the first five groups given below and must also satisfy the requirements of paragraph F.

No applicant will be accepted who is deficient or conditioned in required entrance work representing in the aggregate more than one unit. This rule does not apply to the college work indicated as requisite for a degree. Work of collegiate grade may be made up at any time before the Friday preceding Commencement Day.

(A) ENGLISH GROUP

Two units chosen from the following:

English Composition and Rhetoric.....1 unit
English Classics.....1 unit
English Literature.....1 unit

(B) HISTORY GROUP

Two units chosen from the following:

Civil Government.....½ or 1 unit
United States History.....½ or 1 unit
Mediaeval and Modern or Gen'l Hist'y½ or 1 unit
Greek and Roman History.....½ or 1 unit
English History.....½ or 1 unit

*A unit is a course of study covering a school year of not less than thirty-five weeks, with four or five periods of at least forty-five minutes each per week.

(C) MATHEMATICS GROUP

Two units chosen from the following:

Algebra, through Quadratics.....1 unit
Algebra, beyond Quadratics.....½ unit
Plane Geometry.....1 unit
Solid Geometry.....½ unit

(D) SCIENCE GROUP

One unit chosen from the following:

Physics.....1 unit
Physical Geography.....½ or 1 unit
Botany.....½ or 1 unit
Chemistry.....1 unit
Physiology.....½ or 1 unit
Zoology.....½ or 1 unit
Geology.....½ or 1 unit

(E) FOREIGN LANGUAGE GROUP

Six units chosen from the following: or extra units chosen from the preceding groups, and sufficient units from the following to aggregate six units:

Latin.....2, 3, or 4 units
Greek.....2, 3, or 4 units
German.....2, 3, or 4 units
French.....2, 3, or 4 units
Spanish.....2, 3, or 4 units

A single unit of a foreign language will not be counted toward entrance.

The extent and character of the work required in each subject mentioned above is to be found on page 95 and following.

(F) COLLEGE WORK

In addition to the foregoing requirements, each candidate for a degree must submit satisfactory evidence that he has successfully pursued a course of study equivalent to the first two years of the course leading to a degree in the College of Arts, Philosophy, and Science of this University.

The candidate will be subject to examination in such work. If this work has been done in a college or university of approved standing, the certificate of such college or university will be accepted as a substitute for such examination.

ADMISSION WITH ADVANCED STANDING

(*a*) Applicants for admission with advanced standing must first satisfy the foregoing entrance requirements in the methods described above. This should be done through the Entrance Board.

(*b*) By presentation of satisfactory certificates or by examination such applicants may then obtain any advanced credits in Law to which they are entitled. Applicants for admission to the second year must present satisfactory evidence of having completed the work of the first year of the course of Law or its equivalent; an applicant for admission to the third year must present satisfactory evidence of having completed the work of the first and second years of the course of Law or its equivalent. All law credits must be submitted to the Secretary of the College of Law for adjustment.

In order to obtain the full benefit of the arrangement and detail of the course of study, a student should enter at the beginning of the First Year and attend regularly until the completion of the Third Year.

Those who are unable to do this are earnestly requested to enter promptly at the beginning of the year, or if special work is desired in the second semester, at the beginning of such semester.

Those entering in the middle of a semester are greatly retarded both by the amount of work actually in arrears and also by the fact that the presentation of advanced work must be given on the assumption that work already passed is properly understood by the student.

ADMISSION TO THE COURSE LEADING TO A CERTIFICATE

Requirements for admission of students who are not candidates for a degree are the same as the requirements for admission of candidates for a degree except that the student need not offer the work described in paragraph F and that his certificate need not come from an accredited or recognized High School.

ADMISSION TO SPECIAL COURSES

A person twenty-one years of age, or over, who desires to pursue a special line of work and does not desire to become a candidate for a degree, may be admitted by vote of the Executive Committee to such classes as he is qualified to enter; provided, that if he afterward become a candidate for a degree he must pass the requirements for admission at least one year before the degree is conferred.

Persons wishing a knowledge of legal principles for general business purposes only, or as a part of a liberal education, but not intending to apply for a degree or to take a full course, may be admitted at any time as special students, and may avail themselves of such advantages of the College as they may deem expedient, subject in each case to the approval of the faculty of the work proposed to be undertaken. Their convenience will not be taken into consideration in arranging classes, and they must make satisfactory arrangements as to hours of recitation, etc., with the Dean. No certificate of any kind will be issued to such students.

DEGREES

The degree of Bachelor of Laws (LL. B.) will be conferred on all who being at least twenty-one years of age and having met the requirements necessary for entrance for a degree, pass satisfactorily the examinations at the close of the Third year, after having done at least that year's work in the College of Law at the University.

CERTIFICATES

Those who have completed the studies in this College, but have not complied with the requirements for a degree, will be given an official certificate showing the work done, signed by the President and Secretary of the Board of Trustees and the President of the University.

No distinction is made between the candidates for a degree and other regular students while in attendance at this college. The two classes of students do the same work, recite together, take the same examinations, are held to the same standard of work and stand on the same footing for admission to the bar.

The distinction between the two classes of students consists entirely in the two following respects:

First—The standard of admission for candidates for a degree is higher than that for those who are not candidates for a degree.

Second—Candidates for degrees who have fulfilled all the entrance requirements and have completed the course of study in a satisfactory manner receive a diploma conferring the degree. Regular students, who are not candidates for a degree, receive under similar circumstances a formal certificate of the completion of the course.

ADMISSION TO THE BAR

The regular Supreme Court examination for admission to the Bar is held on the first Tuesday in June of each year. Students who have not regularly attended the full course of three years at this College, or who have not been examined here in all the subjects required in the under-graduate course, or who have not presented acceptable certificates from some recognized school or college of law covering the subjects not pursued here by them, are required to pass this examination before they receive the degree of Bachelor of Laws or the certificate mentioned above.

COURSES OF INSTRUCTION

FIRST YEAR

ELEMENTARY LAW. Five hours a week, first semester. Blackstone; Robinson's Elementary Law; Walker's American Law. Professor TUTTLE.

CRIMINAL LAW AND PROCEDURE. Three hours a week, first semester. May's Criminal Law. Professor OUTHWAITE.

CONTRACTS. Three hours a week, throughout the year. Anson on Contracts (Huffcut's Edition, 1906), Huffcut and Woodruff's Cases on Contracts (Second Edition). and selected cases. Professor PAGE.

TORTS. Two hours a week, first semester; three hours a week, second semester. Bigelow on Torts (Eighth Edition); Erwin's Cases on Torts. Professor TUTTLE.

PERSONAL PROPERTY. Two hours a week, first semester. Schouler's Law of Personal Property (abridgment). Professor RIGHTMIRE.

DEBATE AND ORATORY. One hour a week throughout the year. Mr. BLANCHARD.

AGENCY. Two hours a week, second semester. Mechem on Agency and selected cases. Professor PAGE.

DOMESTIC RELATIONS. Three hours a week, second semester. Tiffany, Persons and Domestic Relations. Professor RIGHTMIRE.

SALES. Two hours a week, second semester. Burdick's Law of Sales of Personal Property. Professor RIGHTMIRE.

REAL PROPERTY I. Two hours a week, second semester. Tiffany on Real Property, Blackstone, Book II, and selected cases. Professor OUTHWAITE.

LOOKING UP THE LAW. Six lectures, second semester. Professor OUTHWAITE.

SECOND YEAR

BAILMENTS. Two hours a week, first semester. Van Zile, Bailments and Carriers. Professor RIGHTMIRE.

NEGOTIABLE INSTRUMENTS. Four hours a week, first semester. Tiedeman's Commercial Paper and Randall's Annotations on the Negotiable Instruments Act. Professor RANDALL.

EVIDENCE. Three hours a week, throughout the year. Greenleaf, 16th Edition by Wigmore. Judge DILLON.

PLEADING. Three hours a week, throughout the year. Phillips on Pleading. Professor KINKEAD.

REAL PROPERTY II. Three hours a week, first semester. Tiffany on Real Property, and selected cases. Professor PAGE.

REAL PROPERTY III. One hour a week, second semester. Tiffany on Real Property, and selected cases. Professor PAGE.

PARTNERSHIP. Two hours a week, second semester. Mechem on Partnership. Professor RANDALL.

LEGAL ETHICS. One hour a week, second semester. Professor OUTHWAITE.

MOOT COURT. Two hours a week, second semester. Professor KINKEAD.

WILLS. Two hours a week, second semester. Page on Wills, and selected cases. Professor PAGE.

PROBATE PRACTICE. One hour a week, second semester. Kinkead's Probate Law and Practice. Professor KINKEAD.

INSURANCE. Two hours a week, second semester. Vance on Insurance and selected cases. Professor PAGE.

PATENT AND COPYRIGHT LAW. Eight Lectures, second semester. Professor RIGHTMIRE.

DEBATING. One hour a week, throughout the year. Mr. BLANCHARD.

THIRD YEAR

CONSTITUTIONAL LAW. Three hours a week, first semester, Black's Constitutional Law and Boyd's Cases. Professor KNIGHT.

CORPORATIONS (Private). Three hours a week, throughout the year. Taylor on Private Corporations. Professor ELLIS.

EQUITY JURISPRUDENCE. Four hours a week, first semester. Merwin, The Principles of Equity and Equity Pleadings. Judge SHAUCK.

QUASI CONTRACTS. Two hours a week, first semester. Woodruff's Annotated Cases on Quasi Contracts. Professor PAGE.

REAL PROPERTY IV. Two hours a week, first semester. Tiffany on Real Property, Part IV. Professor OUTHWAITE.

MOOT COURT. Two hours a week, first semester. Professor KINKEAD.

CORPORATIONS (Municipal). Three hours a week, second semester. Elliott on Public Corporations. Professor BUTLER.

FEDERAL PRACTICE. Two hours a week, second semester. Hughes' Federal Procedure. Professor STEWART.

SURETYSHIP. Two hours a week, second semester. Stearns, The Law of Suretyship. Professor OUTHWAITE.

TRIAL PRACTICE. Two hours a week, second semester. Kinkead's Code Pleading. Professor KINKEAD.

CIRCUIT AND SUPREME COURT PRACTICE. Fifteen Lectures, first half of second semester. Professor SHAUCK.

DAMAGES. Two hours a week, second semester. Mechem's Cases on Damages. Professor TUTTLE.

CONFLICTS OF LAWS. (Private International Law). Two hours a week, second semester. Minor, Conflict of Laws. Professor TUTTLE.

BANKRUPTCY. Ten Lectures, second half of second semester.

SPECIAL INFORMATION

The courses in Patent and Copyright Law and Debate and Oratory are optional. In the second semester of the second year the student must elect either Moot Court or Insurance. In the second semester of the third year the student must elect either Conflict of Laws or Damages. All other studies are required. Every regular student is required to take at least fifteen hours per week in recitation work.

In the second semester of the third year the month of May shall be devoted to a review of the more important subjects of the first and second years.

THE ARTS–LAW COURSE

A candidate for the degree of Bachelor of Arts while registered in the College of Arts, Philosophy, and Science may also register in the College of Law as a candidate for the degree of Bachelor of Laws, *provided* that at the time of seeking such registration in the College of Law (1) he has 135 term hours to his credit in the College of Arts, Philosophy, and Science, including the requisite optional subjects, and exclusive of the credit hours in Military Drill and Physical Training, and (2) has been a student in the College of Arts, Philosophy, and Science of this University at least one year, and (3) has included (or with the further work in the College of Arts, Philosophy, and Science mentioned in the next paragraph shall complete) sufficient courses to amount to thirty term hours in one or more of the four subjects: American History, European History, Economics, Political Science, exclusive of elementary courses in those subjects.

A student so registered in the two colleges must during his first year of double registration complete sufficient further work in the College of Arts, Philosophy, and Science to make his credits in that college aggregate 150 term hours, exclusive of the credit hours in Military Drill and Physical Training. When he has done this and has completed in the College of Law the first year of the course for the degree of Bachelor of Laws, he will be recommended for the degree of Bachelor of Arts; and when he has completed the second and third years of such course in the College of Law, he will be recommended for the degree of Bachelor of Laws.

Application to enter the combined course must be filed with the Dean of the Arts College before registration day at the beginning of the year in which the student is eligible to enter the combined work.

COLLEGE OF PHARMACY

FACULTY AND OTHER INSTRUCTORS

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University.

GEORGE BEECHER KAUFFMAN, B. Sc., Pharm. D., Professor of Pharmacy and DEAN of the College of Pharmacy.

CLAIR ALBERT DYE, G. PH., PH. D., Associate Professor of Pharmacy and SECRETARY of the Faculty.

SIDNEY AUGUSTUS NORTON, PH. D., LL. D., Emeritus Professor of Chemistry.

NATHANIEL WRIGHT LORD, E. M., Professor of Metallurgy and Mineralogy and Director of the School of Mines.

ALBERT MARTIN BLEILE, M. D., Professor of Anatomy and Physiology.

WILLIAM ASHBROOK KELLERMAN, Ph. D., Professor of Botany.

*JOSEPH VILLIERS DENNEY, B. A., Professor of English.

WILLIAM MCPHERSON, D. Sc., PH. D., Professor of Chemistry.

CHARLES SMITH PROSSER, D. Sc., Professor of Geology.

JOHN ADAMS BOWNOCKER, D. Sc., Professor of Inorganic Geology.

LEWIS A. RHOADES, PH. D., Professor of Germanic Languages and Literatures.

CHARLES BRADFIELD MORREY, B. A., M. D., Professor of Bacteriology.

GEORGE WASHINGTON MCCOARD, M. A., Associate Professor of Mathematics.

WILLIAM EDWARDS HENDERSON, PH. D., Associate Professor of Chemistry.

CHARLES WILLIAM FOULK, B. A., Associate Professor of Chemistry.

*JOHN HENRY SCHAFFNER, M. A., M. Sc., Associate Professor of Botany.

WILLIAM LUCIUS GRAVES, M. A., Assistant Professor of English.

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*Absent on leave, 1907–1908.

CHARLES LINCOLN ARNOLD, M. Sc., Assistant Professor of Mathematics.
SAMUEL EUGENE RASOR, M. A., Assistant Professor of Mathematics.
JAMES R. WITHROW, PH. D., Assistant Professor of Chemistry.

ORGANIZATION

The College of Pharmacy offers two courses of study:
The Four-Years Course.
The Two-Years Course.

ADMISSION

GENERAL REQUIREMENTS FOR ADMISSION

Applicants for admission must be at least sixteen years of age. The College is open on equal terms to both sexes.

REQUIREMENTS OF THE OHIO BOARD OF PHARMACY

On October 13, 1904, the Ohio Board of Pharmacy fixed the minimum requirement for admission to Schools and Colleges of Pharmacy by resolution, as follows:

Resolved, That on and after July 1st, 1905, no school or college of pharmacy shall be recognized as in good standing by the Ohio Board of Pharmacy, which does not require of all applicants as a minimum condition of admission, a common school education, or the equivalent thereof, which shall include one year in a High School of the first grade (Ohio), or an academy, legally constituted, providing a course of study of not less than four years.

Later, in explanation of the above resolution, the following statement was issued; In order to dispel any doubt as to the meaning of the term "equivalent" to one year in a High School of first grade (Ohio), used in the resolutions of October 13th, 1904, the Board hereby specifies a minimum equivalent as embracing one year of instruction in each of the following branches: Algebra, English, Natural Science, and History (United States or General).

Any school of pharmacy may admit to a course in pharmacy an applicant who has received instruction in the branches herein named in a high school, academy, or other educational institution for a period of one year.

By order of the Board of Pharmacy.

W. R. OGIER, *Secretary.*

Columbus, Ohio, April 1st, 1905.

ADMISSION TO THE COURSE LEADING TO A CERTIFICATE*

In order to conform to the requirements of the Board, applicants for admission to the short course must present certificates showing instruction in the following:

English, one year.

Algebra, one year.

History, (United States or General), one year.

Natural Science, one year.

The requirements in Natural Science may be met by any of the following or by combination of them: Physical Geography, Physics, Physiology, Chemistry, Botany.

Applicants who are slightly deficient in these requirements will be given until the end of the first year to remove their deficiency.

Candidates for entrance should secure certificates from their school authorities describing in full the work completed. These certificates should, if possible, be sent in advance to the Entrance Board. Candidates presenting themselves without certificates must come in time for the scheduled examinations.

SPECIAL SHORT COURSE STUDENTS

Students who have completed the work of the first year of the Short Course, and who wish to pursue certain of the studies of the Long Course, will be permitted to do so provided they are able to convince the Executive Committee and the Entrance Board of their ability to carry the work desired. Such students shall be classified as special students in the Short Course.

* For outline of the Short Course see page 183.

ADMISSION TO THE COURSE LEADING TO A DEGREE

REQUIREMENTS BY UNITS†

Applicants to be admitted to full standing must obtain credit by examination or certificate for eleven units, chosen from the five groups which follow. No applicant will be accepted who is deficient or conditioned in required entrance work representing in the aggregate more than three units.

(A) ENGLISH GROUP

Two units chosen from the following:

English Composition and Rhetoric.....1 unit
English Classics.....1 unit
English Literature.....1 unit

(B) HISTORY GROUP

Two units chosen from the following:

Civil Government.....½ unit
United States History.....½ or 1 unit
Mediaeval and Modern or Gen'l Hist'y 1 or ½ unit
Greek and Roman History.....1 or ½ unit
English History.....½ or 1 unit

(C) MATHEMATICS GROUP

Three units chosen from the following:

Algebra, (through quadratics).....1 unit
Algebra, (beyond quadratics).....½ unit
Geometry, (plane).....1 unit
Geometry, (solid).....½ unit

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†A unit is a course of study covering a school year of not less than thirty-five weeks, with four or five periods of at least forty-five minutes each per week.

(D) SCIENCE GROUP

Two units chosen from the following, including Physics and Botany:

Physics	1 unit
Physical Geography	½ or 1 unit
Botany	½ or 1 unit
Chemistry	1 unit
Physiology	½ unit
Zoology	½ or 1 unit
Geology	½ unit

(E) FOREIGN LANGUAGE GROUP

Two units chosen from the following:

Latin	2, 3, or 4 units
Greek	2, 3, or 4 units
German	2, 3, or 4 units
French	2, 3, or 4 units
Spanish	2, 3, or 4 units

A single unit of a foreign language will not be counted toward entrance.

The extent and character of the work required in each subject mentioned above is to be found on page 95 and following.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work and do not desire to become candidates for degrees, will be admitted on the conditions stated on page 94.

ADMISSION TO ADVANCED STANDING

For admission to advanced standing in this College, see requirements as stated on page 93.

COURSES

Two courses of study are offered in this college, viz.: The Short Course, extending over a period of two collegiate years; and the long course, or the Course Leading to a Degree, extending over a period of four collegiate years. The object of the Short Course is to train students for the general work of the dispensing pharmacist. It fully meets the requirements of the State Board of Pharmacy, and students completing it find no difficulty in securing registration. The long course, on the other hand, furnishes much more extensive and more thorough training, thus enabling the graduate to successfully follow any line of chemical or pharmaceutical work.

SHORT COURSE

On the satisfactory completion of this course the student is granted a certificate of Pharmaceutical Chemist.

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

FIRST YEAR

FIRST TERM.		SECOND TERM		THIRD TERM	
Chemistry (3)	4.	Chemistry (3)	4.	Chemistry (45)	4.
Latin (26)	4.	Latin (26)	4.	Latin (26)	4.
Physics (1)	5.	Physics (1)	5.	Botany (1)	5.
Pharmacy (6)	3.	Pharmacy (7)	5.	Pharmacy (8)	5.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Physical Training	1.	Physical Training	1.	Physical Training	1.

SECOND YEAR

Pharmacy (12)	3.	Pharmacy (13)	3.	Pharmacy (14)	3.
Chemistry (34)	5.	Chemistry (34)	5.	Pharmacy (21)	4.
Pharmacy (9)	5.	Pharmacy (10)	5.	Pharmacy (11)	5.
Physiology (2)	3.	Pharmacy (18)	3.	Physiology (5)	2.
Bacteriology (1)	2.	Bacteriology (1)	2.	Pharmacy (19)	3.
Cadet Service (Men)	1.	Cadet Service (Men)	1.	Cadet Service (Men)	1.
Physical Training (Women)	1.	Physical Training (Women)	1.	Physical Training (Women)	1.

THE COURSE LEADING TO A DEGREE

Degree: Bachelor of Science in Pharmacy.

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (7)	4.	Chemistry (7)	4.	Chemistry (12)	4.
Latin (26) or German (1)	4.	Latin (26) or German (1)	4.	Latin (26) or German (1)	4.
Mathematics (21)	3.	Mathematics (22)	3.	Mathematics (23)	3.
English (1)	2.	English (1)	2.	English (1)	2.
Botany (6)	4.	Botany (7)	4.	Botany (8)	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Physical Training	1.	Physical Training	1.	Physical Training	1.

SECOND YEAR

Chemistry (20)	4.	Chemistry (20)	4.	Chemistry (20)	4.
Pharmacy (6)	3.	Pharmacy (7)	5.	German (2)	4.
Physics (11)	3.	Physics (11)	3.	Pharmacy (8)	5.
Chemistry (21)	2.	Chemistry (21)	2.	Physics (11)	3.
Chemistry (40)	1.	Chemistry (40)	1.	Chemistry (21)	2.
Drawing (2)	3.	Drawing (25)	1.		
Drawing (24)	1.				
Cadet Service (Men)	1.	Cadet Service (Men)	1.	Cadet Service (Men)	1.
Physical Training (Women)	1.	Physical Training (Women)	1.	Physical Training (Women)	1.

THIRD YEAR

Pharmacy (9)	5.	Pharmacy (10)	5.	Pharmacy (11)	5.
Pharmacy (12)	3.	Pharmacy (13)	3.	Pharmacy (14)	3.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Bacteriology (1)	2.	Bacteriology (1)	2.	Physiology (5)	2.
Chemistry (46)	2.	Chemistry (46)	2.	Chemistry (46)	2.
Chemistry (47)	2.	Chemistry (47)	2.	Chemistry (47)	2.

FOURTH YEAR

Geology (2)	5.	Geology (6)	3.	Pharmacy (21)	4.
Pharmacy (15)	5.	Pharmacy (16)	5.	Pharmacy (17)	5.
Pharmacy (20)	3.	Pharmacy (19)	3.	Metallurgy (2)	3.
Thesis		Thesis		Thesis	
		Elective five hours			

COLLEGE OF VETERINARY MEDICINE

FACULTY AND INSTRUCTORS

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT.

DAVID STUART WHITE, D. V. M., DEAN, and Professor of Veterinary Medicine.

SEPTIMUS SISSON, S. B., V. S., SECRETARY, and Professor of Comparative Anatomy.

ALBERT MARTIN BLEILE, M. D., Professor of Anatomy and Physiology.

CHARLES BRADFIELD MORREY, B. A., M. D., Professor of Bacteriology.

OSCAR ERF, B. Sc., (Agr.), Professor of Dairying.

FREDERICK RUPERT MARSHALL, B. Sc., (Agr.), Professor of Animal Husbandry.

OSCAR VICTOR BRUMLEY, V. S., Associate Professor of Veterinary Medicine.

D. HAMMOND UDALL, B. Sc., D. V. M., Associate Professor of Veterinary Medicine.

JAMES MCILVAINE PHILLIPS. M. D., Associate Professor of Veterinary Medicine.

FRANCIS LEROY LANDACRE, B. A., Associate Professor of Zoology and Entomology.

WILLIAM LLOYD EVANS, PH. D., Assistant Professor of Chemistry.

ALBERT D. FITZGERALD, B. Sc., D. V. M., Assistant Professor of Comparative Anatomy and Pathology.

EUGENE F. MCCAMPBELL, S. B., Instructor in Bacteriology.

ADMISSION

Applicants for admission must be at least seventeen years of age.

I. Applicants who intend to become candidates for the degree of Doctor of Veterinary Medicine must be prepared to offer the following units for unconditional admission:

(A) ENGLISH GROUP

One unit:

English Composition and Rhetoric.....1 unit

(B) HISTORY GROUP

One-half unit:

United States History.....½ unit

(D) SCIENCE GROUP

Two units:

Physics.....1 unit
Physical Geography.....½ unit
Botany.....½ unit

(E) FOREIGN LANGUAGE GROUP

One unit, chosen from the following:

Latin.....1 unit
German.....1 unit

The extent and character of the work required in each High School subject mentioned above is indicated on page 95 and following.

An applicant for admission who may be somewhat in arrears in any given subject may find opportunity to make up his work by private study, at the University Summer School, or in the Columbus High Schools.

II. Applicants who intend to become candidates for the certificate of Veterinary Surgeon must be prepared to present the following: Arithmetic, Geography, and Grammar.

Students may enter the College with the common branches (Arithmetic, Geography, and Grammar) for the certificate of Veterinary Surgeon; and if during their course they make up the entrance subjects required for the degree, either at the University Summer School or at an accredited high school, the degree will be conferred on the completion of the other requirements therefor.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work in this College will be admitted on the conditions stated on page 94.

ADMISSION TO ADVANCED STANDING

For admission to advanced standing in this College see requirements as stated on page 93.

COURSE IN VETERINARY MEDICINE

The course of study, depending upon the subjects offered for admission, leads to:

(a) The Degree of Doctor of Veterinary Medicine (D. V. M.) or to

(b) A Certificate of Veterinary Surgeon (V. S.).

OUTLINE OF COURSE

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department, the other figure indicates the number of credit hours.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (3) Principles.	4.	Chemistry (3) Inorganic.	4.	Physiology (14)	3.
Physiology (4) Histology.	5.	Physiology (14)	3.	Physiology (4) Phys. Chem.	5.
Vet. Med. (11) Anatomy.	8.	Physiology (4) Histology.	5.	Vet. Med. (13) Anatomy.	10.
		Vet. Med. (12) Anatomy.	10.	Zoology (28)	3.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

Bacteriology (4)	3.	Vet. Med. (38) Materia Medica.	5.	Vet. Med. (38) Pharmacy.	5.
Vet. Med. (38) Materia Medica.	5.	Vet. Med. (15) Theory and Prac.	5.	Vet. Med. (16) Theory and Prac.	5.
Vet. Med. (14) General Pathology.	5.	Vet. Med. (24) General Surgery.	5.	Vet. Med. (40) Surgical Diagnosis.	3.
Vet. Med. (37) Anatomy.	7.	Vet. Med. (19) Clinic.	3.	Vet. Med. (19) Clinic.	3.
		Vet. Med. (34) Pathology Lab.	3.	Vet. Med. (34) Pathology Lab.	3
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.

THIRD YEAR

FIRST TERM		SECOND YEAR		THIRD TERM	
Vet. Med. (21) Theory and Prac.	5.	Vet. Med. (18) Surgical Diseases.	3.	Vet. Med. (22) Therapeutics.	3.
*Vet. Med. (25) Operating.	3.	Vet. Med. (19) Clinic.	3.	Vet. Med. (19) Clinic.	3.
Vet. Med. (19) Clinic.	3.	Vet. Med. (27) Meat Inspection.	3.	Vet. Med. (23) Obstetrics.	5.
Vet. Med. (18) Surgical Diseases.	3.	Vet. Med. (31) Canine Diseases.	5.	Vet. Med. (33) Ophthalmology.	2.
*Dairying (19) Milk Inspection.	2.	Animal Husb. (18)	5.		
Vet. Med. (26) Horse Shoeing.	3.	Vet. Med. (41) Operating.	3.		
Vet. Med. (36) Pathology Lab.	3.				
*Bacteriology (6)	3–5.	*Bacteriology (6)	3–5.	*Bacteriology(6)	3–5.
*Bacteriology(12)	3–5	*Bacteriology(12)	3–5	*Bacteriology(12)	3–5

NOTE.—At least one optional subject must be taken, and credit must be obtained for any optional subject taken.

VETERINARY HOSPITAL

CLINICAL STAFF

DR. D. S. WHITE,
DR. D. H. UDALL,
DR. O. V. BRUMLEY,
H. S. MURPHEY, *Clerk.*

Free Clinics are held from 2 to 4 P. M. daily (Saturday 10 to 12 A. M.) that the students may become in a practical way familiar with the care and treatment of diseased and injured animals. During the clinic hours the students are required to assist the instructor in all surgical operations (castrations, spayings, dental work, etc.) and to administer all medicines to sick animals.

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*Optional.

THE SUMMER TERM

In 1905 a Summer Term of six weeks was established at the University and thirty-one courses in thirteen distinct lines of work were given. In 1906 forty-six and in 1907 fifty-three courses in sixteen lines of work were offered. The scope of the work for the Summer of 1908 has been considerably increased so that twenty-four different lines of study will be represented and the number of courses has been increased to eighty. The new subjects introduced are economics, French, music, sociology, industrial arts, mechanical and electrical engineering, and shopwork for artisans. The courses in engineering subjects have been arranged particularly to meet the needs of artisans and others who may be benefited by practical courses which make available the University's instructors and machine shop and other engineering equipment.

The Summer Term is in charge of a committee of the University Faculty known as The Administrative Board. Professor W. T. Magruder is Dean and Professor Frank P. Graves, Secretary.

In 1908 the term will open on Monday, June 22, and close eight weeks later, Friday, August 14. Courses for which no university credit is allowed will close on July 31. The Artisan Courses run for four weeks only. Those in drawing and in steam and electrical engineering from June 22 to July 18, and those in shopwork and drawing from July 20 to August 14. An Institute for superintendents and principals will be held during the week of July 6 to 11.

ADMISSION AND REGISTRATION. There are no stated requirements for admission to the Summer Term. The courses are open to all persons who are qualified to pursue them to advantage and who conform to the general regulations of the University. Each student is required to register on the opening day of the term. The registration or incidental fee is $6.00. No other fees are charged except for materials used in the chemical laboratory.

UNIVERSITY CREDITS AND DEGREES. Credit will be given for work done in the Summer Term for each subject upon satisfactory completion of the same to the extent

indicated in the announcement of courses. This credit will count toward a University degree when the requirements for admission to one of the four year courses have been fulfilled and admission to the corresponding college of the University secured. The requirement of one year of residence at the University for the master's degree can be met by residence at the University for the equivalent amount of time in summer terms. No student will be permitted to register for more than twelve hours of University credit.

FACULTY

FREDERIC C. BLAKE, PH. D..... Physics.
ROSSER D. BOHANNAN, B.Sc., C.E., E.M. Mathematics.
BENJAMIN L. BOWEN, PH. D..... French.
FRANCIS C. CALDWELL, A. B., M.E..... Artisan Courses.
BERTHOLD A. EISENLOHR, M. A..... German.
WALLACE S. ELDEN, PH. D..... Latin.
ELWOOD A. EMERY, B. L., B. S..... Music.
WILLIAM L. EVANS, PH. D..... Chemistry.
THOMAS E. FRENCH, M. E..... Drawing.
FRANK P. GRAVES, PH. D..... Education.
WILLIAM L. GRAVES, M. A..... English.
JAMES E. HAGERTY, PH. D..... Economics and Sociology.
ARTHUR W. HODGMAN, PH. D..... Latin.
GEORGE D. HUBBARD, PH. D..... Geography.
HORACE JUDD, M. E., M. Sc..... Artisan Courses.
*WILLIAM A. KELLERMAN, PH. D..... Botany.
WILLIAM A. KNIGHT, M. E..... Artisan Courses.
MARY R. LAVER,..... Art.
THOMAS K. LEWIS, B. Sc..... Drawing.
THOMAS S. LOWDEN, PH. D..... Psychology.
EMMA E. MCKINLEY, B. Sc..... Domestic Science.
WILLIAM T. MAGRUDER, M. E..... Artisan Courses.
SAMUEL E. RASOR, M. A..... Mathematics.
FRANK E. SANBORN, S. B..... Artisan Courses.
WILBUR H. SIEBERT, M. A..... European History.
WILLIAM E. SIMONDS, PH. D..... English.
KARL D. SWARTZEL, M. Sc..... Mathematics.
JOSEPH R. TAYLOR, M. A..... English.
GEORGE R. TWISS, M. A..... Physics.
ALFRED VIVIAN, PH. G..... Agricultural Chemistry.
JAMES R. WITHROW, PH. D..... Chemistry.

* Died March 8, 1908.

INSTRUCTORS

CLEMENT M. BEEM.....Artisan Courses.
CHARLES P. CROWE.....Artisan Courses.
EMMA F. MCCALLY.....Art.
RALPH ROGERS, B. S. in M. E.....Artisan Courses.
ROY C. WOOLMAN.....Manual Training.

ANNOUNCEMENT OF COURSES

All courses are given daily, except Saturday, unless otherwise stated. Credit courses are given their regular university number; all other courses are designated by letter.

AGRICULTURE

A. SOIL STUDY.—Room 205, Townshend Hall. Six weeks, 10:30 to 11:30. Professor VIVIAN.

B. PLANTS AND ANIMALS.—Room 205, Townshend Hall. Six weeks, 8:30 to 9:30. Professor VIVIAN.

AMERICAN HISTORY

4. ADVANCED POLITICAL HISTORY. Four credit hours. Room 205, University Hall. 10:30 to 11:30. Professor KNIGHT.

11. THE TEACHING OF AMERICAN HISTORY. Three credit hours, Room 205, University Hall. 8:30 to 9:30. Prerequisites: A thorough high-school course in American History and Civics. Professor KNIGHT.

ART

The courses offered, while intended primarily for teachers and supervisors, are also adapted to the needs of persons desiring a knowledge of art as a means of pleasure, culture, profession, and livelihood.

20. DRAWING AND PAINTING. Three credit hours. Room 19, Hayes Hall. 10:30 to 12:30. Assistant Professor LAVER, Miss MCCALLY.

13. ADVANCED COMPOSITION AND DESIGN. Three credit hours. Room 20, Hayes Hall. 7:30 to 9:30. MISS MCCALLY.

1. THE TEACHING AND SUPERVISING OF ART.—Three credit hours. Room 19, Hayes Hall. 7:30 to 9:30. Assistant Professor LAVER.

*BOTANY

A. ELEMENTARY BOTANY.—Botanical Hall. Six weeks. 10:30 to 11:30. Professor KELLERMAN.

3. ADVANCED BOTANY.—Four credit hours. Botanical Hall. 11:30 to 12:30. Professor KELLERMAN.

CHEMISTRY

7 or 44. GENERAL CHEMISTRY.—Four or eight credit hours. Room 200, Chemistry Hall. Lectures and quizzes, 7:30 to 8:30. Laboratory hours to be arranged with the instructor. Text-books: McPherson and Henderson's Elementary Study of Chemistry and McPherson's Laboratory Note-book in Elementary Chemistry. Assistant Professor EVANS.

Course 7 is an elementary course for students who have not studied the subject. Course 44 is for those who have completed an acceptable course in a secondary school.

12 or 45. QUALITATIVE ANALYSIS.—Four or eight credit hours. Room 205, Chemistry Hall. Lectures and quizzes, 8:30 to 9:30. Laboratory hours to be arranged with the instructor. Text-book: McPherson's Elementary Treatise on Qualitative Analysis. Assistant Professor WITHROW.

Prerequisite, course 3 for course 45; and course 7 or 44 for course 12.

20 or 49, and 47 or 27. ADVANCED CHEMISTRY. Four or eight credit hours. Rooms 101 and 207, Chemistry Hall. Time to be arranged. Assistant Professors EVANS and WITHROW.

CIVIL ENGINEERING

22 or 23. SUMMER FIELD WORK IN SURVEYING.—June 19 to July 18, six days a week, ten hours a day. Professors SHERMAN and ENO, Assistant Professor SCHLAFLY, MR. CHAMBERLIN and MR. WARD.

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*Owing to the death of Professor Kellerman, which occurred at Zacapa, Guatemala, March 8, 1908, definite arrangements for the courses in Botany will have to be made later. Courses corresponding in a general way to those announced will be given.

DOMESTIC SCIENCE

A. SELECTION AND PREPARATION OF FOOD.—Six weeks, 3:30 to 5:30. Room 3, Hayes Hall. Miss MCKINLEY.

B. HOUSEHOLD SANITATION.—Six weeks, 1:30 to 3:30. Room 3, Hayes Hall. T. and Th. Miss MCKINLEY.

C. THE TEACHING OF DOMESTIC SCIENCE.—Six weeks, 1:30 to 3:30. Room 3, Hayes Hall. *M., W. and F.* Miss MCKINLEY.

ECONOMICS

33. PRINCIPLES OF ECONOMICS.—Four credit hours. Room 209, University Hall. 7:30 to 8:30. Text-book: Seager's Introduction to Economics. Professor HAGERTY.

EDUCATION

1. EDUCATIONAL PSYCHOLOGY.—Four credit hours. Room 107, Chemistry Hall. 7:30 to 8:30. Text-book: James's Talks on Psychology. Professor LOWDEN.

2. PRINCIPLES OF EDUCATION.—Four credit hours. Room 107, Chemistry Hall. 11:30 to 12:30. Text-books: Horne's Philosophy of Education, Chancellor's Our Schools, and Bagley's Educative Process. Professor GRAVES.

3. HISTORY OF EDUCATION.—Four credit hours. Room 107, Chemistry Hall. 10:30 to 11:30. Text-books: Graves's Introduction to the History of Education, and Monroe's Briefer Course in the History of Education. Professor GRAVES.

4. MENTAL DEVELOPMENT.—Four credit hours. Room 107, Chemistry Hall. 8:30 to 9:30. Professor LOWDEN.

ELECTRICAL ENGINEERING

A. ELEMENTARY ELECTRICAL ENGINEERING.—Engineering Laboratory, north end. Lecture and recitation, 8:30 to 9:30; laboratory, 9:30 to 12:30. Professor CALDWELL.

B. DIRECT CURRENT DYNAMO MACHINERY.—Engineering Laboratory, north end. Lecture and recitation, 7:30 to 8:30; laboratory, 9:30 to 12:30. Professor CALDWELL.

ENGLISH

1. COMPOSITION AND RHETORIC.—Four credit hours. Room 119, University Hall. 7:30 to 8:30 and 10:30 to 11:30, if necessary. Scott and Denney's Composition-Literature. Assistant Professor GRAVES.

8. ENGLISH CLASSICS.—Four credit hours. Room 117, University Hall. 8:30 to 9:30. Professor SIMONDS.

45. AMERICAN LITERATURE.—Four credit hours. Room 117, University Hall. 7:30 to 8:30. Professor SIMONDS.

38. THE NOVEL.—Four credit hours. Room 119, University Hall. 10:30 to 11:30 Associate Professor TAYLOR.

48. THE TEACHING OF ENGLISH.—Four credit hours. Room 119, University Hall, 11:30 to 12:30. Associate Professor TAYLOR.

EUROPEAN HISTORY

1. THE HISTORY OF EUROPE IN THE MIDDLE AGES.—Four credit hours. Room 202, University Hall. 8:30 to 9:30. Text-book: Robinson's History of Western Europe. Professor SIEBERT.

4. THE HISTORY OF ENGLAND.—Four credit hours. Room 202, University Hall. 7:30 to 8:30. Professor Siebert.

FRENCH

1. ELEMENTARY COURSE.—Four credit hours. Room 118, University Hall. 10:30 to 11:30. Text-book: Fraser and Squair's French Grammar. Professor BOWEN.

2. ADVANCED COURSE.—Four credit hours. Room 118, University Hall. 11:30 to 12:30. Professor BOWEN.

GEOGRAPHY

A. PHYSICAL GEOGRAPHY.—Lecture Room, Orton Hall. Six weeks, 8:30 to 9:30. Laboratory, Tuesday, 1:30 to 4:30. Text-book: Tarr's New Physical Geography. Assistant Professor HUBBARD.

B. COMMERCIAL GEOGRAPHY.—Lecture Room, Orton Hall. Six weeks, 10:30 to 11:30. Assistant Professor HUBBARD.

GERMAN

1. ELEMENTARY COURSE.—Four credit hours. Room 317, University Hall. 7:30 to 8:30. Text-book: Thomas's German Grammar (revised). Assistant Professor EISENLOHR.

10. GERMAN CLASSICS.—Four credit hours. Room 317, University Hall, 8:30 to 9:30. Assistant Professor EISENLOHR.

INDUSTRIAL ARTS

A. MECHANICAL MOVEMENTS.—Room 12, Hayes Hall. June 22 to July 18. Six days a week. 7:30 to 8:30. Professor SANBORN.

LATIN

A. VERGIL.—Room 316, University Hall, Six weeks, 10:30 to 11:30. Associate Professor ELDEN.

B. CICERO'S ORATIONS.—Room 306, University Hall. Six weeks, 7:30 to 8:30. Text-book: Allen and Greenough's Cicero, revised edition preferred. Associate Professor HODGMAN.

13. SALLUST'S JUGURTHA.—Four credit hours. Room 316, University Hall. 11:30 to 12:30. Prerequisite: Four units of preparatory Latin. Text-book: Herbermann's Jugurtha of Sallust. Associate Professor ELDEN.

19. LATIN PROSE-COMPOSITION.—Three credit hours. Room 306, University Hall. 8:30 to 9:30. Prerequisites: Four units of preparatory Latin, and either credit for advanced Latin or experience in teaching Latin. Text-book: Mather and Wheeler's Latin Prose Writing. Associate Professor HODGMAN.

LIBRARY WORK

A special course of illustrated lectures intended for high-school teachers and other persons who use libraries will be given on Friday afternoons at 4:30 o'clock in the basement reading-room in Orton Hall. The subjects of the lectures will be as follows:

June 26. "The General Organization of a Library," Miss Olive Jones.
July 3. "Catalogues and Their Use," Miss Mirpah G. Blair.
July 10. "Indexes and Bibliographies," Miss Mirpah G. Blair.
July 17. "Dictionaries, General Encyclopedias, and Gazetteers." Miss Maud D. Jeffrey.
July 24. "Reference Books on Special Subjects," Miss Maud D. Jeffrey.
July 31. "Government Documents," Mr. Charles W. Reeder.
Aug. 7. "The Use of Government Documents," Mr. Charles W. Reeder.

Convocation Addresses at 9:30 o'clock in Chemistry Hall will be delivered on—

July 8. "School Libraries," Mr. Martin A. Hensel.
July 14. "Library Forces," Miss Mary Eileen Ahern.
July 22. "Traveling Libraries," Hon. Charles B. Galbreath.

MANUAL TRAINING

A. HANDWORK FOR ELEMENTARY SCHOOLS.—Room 22, Hayes Hall. Six weeks, 1:30 to 3:30. Assistant Professor LEWIS.

B. CLAY-MODELING AND POTTERY FOR ELEMENTARY SCHOOLS.—Room 22, Hayes Hall. Six weeks, 3:30 to 5:30. Assistant Professor LEWIS.

C. WOODS AND WOOD-WORKING.—Room 9, Hayes Hall. Six weeks, 1:30 to 2:30. Mr. WOOLMAN.

D. WOOD-WORKING FOR ELEMENTARY AND SECONDARY SCHOOLS.—Six weeks, 2:30 to 5:30. Room 9, Hayes Hall. Mr. WOOLMAN.

MATHEMATICS

A. ELEMENTARY ALGEBRA.—Room A, Page Hall. Six weeks, 8:30 to 9:30. Text-book: Wells' Algebra for Secondary Schools.

B. PLANE GEOMETRY.—Room A, Page Hall. Six weeks, 7:30 to 8:30. Text-book: Wentworth's Geometry (revised). Assistant Professor RASOR.

C. SOLID GEOMETRY.—Room B, Page Hall. Six weeks, 10:30 to 11:30. Text-book: Wentworth's Geometry (revised). Associate Professor SWARTZEL.

33. ANALYTICAL GEOMETRY.—Five credit hours. Room B, Page Hall. 7:30 to 8:30. Text-book: Ashton's Analytical Geometry. Professor BOHANNAN.

43. INTEGRAL CALCULUS.—Five credit hours. Room B, Page Hall. 8:30 to 9:30. Text-book: Murray's Integral Calculus. Professor BOHANNAN.

D. TEACHING OF MATHEMATICS.—Room B, Page Hall. Six weeks, 11:30 to 12:30. Associate Professor SWARTZEL.

MECHANICAL DRAWING

A. ELEMENTARY MECHANICAL DRAWING.—Room 45, Brown Hall, 9:30 to 12:30 or 1:30 to 4:30, six days a week, four weeks, June 22 to July 18. Repeated July 20 to August 14. Text-book: Mathewson's Notes on Mechanical Drawing. Mr. ROGERS.

B. ADVANCED MECHANICAL DRAWING.—Room 45, Brown Hall, 9:30 to 12:30 or 1:30 to 4:30, six days a week, four weeks, June 22 to July 18. Repeated July 20 to August 14. Mr. ROGERS.

33. PROJECTION DRAWING.—Three credit hours. Room 44, Brown Hall. 1:30 to 3:30. Text-book: Anthony's Mechanical Drawing. Professor FRENCH.

48. THE TEACHING OF MECHANICAL DRAWING.—Four credit hours. Room 47, Brown Hall. 3:30 to 5:30. Professor FRENCH.

MECHANICAL ENGINEERING

A. STEAM AND GAS ENGINES.—Room 206, south end, Engineering Laboratory. Lectures and recitations, 7:30 to 8:30. Professor MAGRUDER.

B. STEAM BOILERS.—Room 206, south end, Engineering Laboratory. Lectures and recitations. 8:30 to 9:30. Professor MAGRUDER.

C. ELEMENTARY STEAM ENGINEERING LABORATORY.—Mechanical Laboratory. 1:30 to 5:30. Assistant Professor JUDD.

D. ADVANCED STEAM ENGINEERING LABORATORY.—Mechanical Laboratory and Engineering Laboratory. 1:30 to 5:30. Assistant Professor Judd.

MUSIC

A. ELEMENTARY COURSE.—Chapel, University Hall, 10:30 to 11:30. Professor EMERY.

B. ADVANCED COURSE.—Chapel, University Hall. 2:30 to 3:30. Professor EMERY.

C. PRACTICE IN CHORUS SINGING.—Chapel, University Hall. 4:30 except on Friday. Professor EMERY.

PHYSICS

A. COLLEGE ENTRANCE PHYSICS.—Sound, Light, Electricity. Room 51, Physics Building. Six weeks, daily, 10:30 to 11:30, and T. and Th., 11:30 to 12:30. Text-book: Mann and Twiss's Physics. Mr. Twiss. Laboratory, Room 62, M. W. and F., 3:30 to 5:30. Assistant Professor BLAKE.

13. ADVANCED LABORATORY PHYSICS.—Four credit hours. Room 31, Physics Building. 1:30 to 3:30. Assistant Professor BLAKE.

17. THE TEACHING OF PHYSICS.—Four credit hours. Room 51, Physics Building. Daily, 8:30 to 9:30. Prerequisite, one year of elementary physics, and either a half year of college physics or a year's experience in teaching the subject. Mr. TWISS.

SHOPWORK

ENGINEERING COURSES

(June 22 to July 18. Six days a week)

4. CHIPPING AND FILING.—Room 6, Hayes Hall. 8:30 to 11:30 or 1:30 to 4:30. Assistant Professor KNIGHT.

7. CARPENTRY AND PATTERN-MAKING.—Room 17, Hayes Hall. 8:30 to 11:30 or 1:30 to 4:30. Mr. BEEM.

11. FORGING. Room 6W, Hayes Hall. 8:30 to 11:30 or 1:30 to 4:30. Mr. CROWE.

13. MACHINE-WORK.—Room 6, Hayes Hall. 8:30 to 11:30 or 1:30 to 4:30. Assistant Professor KNIGHT.

14. MACHINE-WORK.—Room 6, Hayes Hall, June 22 to July 3. 8:30 to 12:00 and 1:30 to 5:00. Prerequisite, Shop 13. Assistant Professor KNIGHT.

15. ADVANCED MACHINE WORK.—Room 6, Hayes Hall. July 6 to July 18. 8:30 to 12:00 and 1:30 to 5:00. Prerequisite, Shop 14. Assistant Professor KNIGHT.

ARTISAN COURSES

(July 20 to August 14)

A. PATTERN-MAKING.—Room 17, Hayes Hall. Mr. BEEM.

B. CABINET-MAKING.—Room 17, Hayes Hall. Mr. BEEM.

C. FORGING.—Room 6W, Hayes Hall. Mr. CROWE.

D. TOOL-SMITHING.—Room 6W, Hayes Hall. Mr. Crowe.

E. BENCH-WORK IN IRON.—Room 6, Hayes Hall. Assistant Professor KNIGHT.

F. METAL LATHE-WORK.—Room 6, Hayes Hall. Assistant Professor KNIGHT.

G. ADVANCED METAL LATHE-WORK.—Room 6, Hayes Hall, Assistant Professor KNIGHT.

H MILLING-MACHINE WORK AND GRINDING.—Room 6, Hayes Hall. Assistant Professor KNIGHT.

I. TOOL MAKING.—Room 6, Hayes Hall, Assistant Professor KNIGHT.

SOCIOLOGY

1. ELEMENTS OF SOCIOLOGY.—Four credit hours. Room 209, University Hall. 8:30 to 9:30. Text-book: Gidding's Elements of Sociology. Professor HAGERTY.

For further information send for a bulletin of the Summer Term. Those desiring special information in regard to the Artisan Courses should send for the special bulletin describing those courses. All such requests should be addressed to the University Editor.

THE LAKE LABORATORY

The Lake Laboratory, maintained by the Ohio State University at Sandusky, Ohio, is designed to provide opportunity for the investigation of the biology of the lake region, and for giving certain courses of instruction in biological subjects.

FEES. The total fee is fixed at $20 for a term of six weeks' instruction with privilege of continuing laboratory work at least two weeks after the lecture courses are completed. No enrollment will be made for less than a half term.

UNIVERSITY CREDITS. Several of the advanced courses cover ground of the University courses. Students with University standing may secure University credits for work which is equivalent to such University courses.

INSTRUCTORS. In addition to Professor Osborn, Director, the following instructors have been appointed for the Summer Term of 1908:

E. L. RICE, PH. D.....Delaware, Ohio
Professor of Zoology, Ohio Wesleyan University

MALCOLM E. STICKNEY, A. M.....Granville, Ohio
Assistant Professor of Botany, Denison University

LYNDS JONES, PH. D.....Oberlin, Ohio
Associate Professor of Zoology, Oberlin College

CHARLES BROOKOVER, B. PED., M. S.....Akron, Ohio
Professor of Biology, Buchtel College

W. B. HERMS, A. M.....Cambridge, Mass.
Fellow in Zoology, Harvard University

COURSES OF STUDY

ZOOLOGY AND ENTOMOLOGY

A. GENERAL ZOOLOGY.—Especially for Teachers. Laboratory and field courses with occasional lectures and quiz. Professor RICE.

B. EMBRYOLOGY.—A study of mitosis, segmentation, and germ layer formations of different types, but with special emphasis on the development of the fish. Professor BROOKOVER.

C. ENTOMOLOGY.—Field and laboratory course, including instruction in collecting, mounting, and identifying insects in connection with studies in life history and anatomy. Professor OSBORN.

D. ICHTHYOLOGY.—Special course devoted particularly to the lake fishes, their habits and food supplies. Professor BROOKOVER.

E. ORNITHOLOGY.—Field work, together with lectures on morphology and natural history of birds. Professor JONES.

F. INVERTEBRATE MORPHOLOGY.—An advanced course including laboratory work on representative forms, investigations of special morphological problems, and a discussion of the classification and phylogenic relationship of the various groups of invertebrates, with occasional lectures and quizzes. Professor HERMS.

G. EXPERIMENTAL ZOOLOGY.—Lecture and laboratory course. A review of the methods and results of the experimental study of zoology and evolution, with special reference to later work on heredity. A study of Mendel's Law will be undertaken with its application to animal breeding from both the practical and theoretical viewpoint. Open to those who have had a course in general zoology. Professor HERMS.

H. VERTEBRATE COMPARAITVE ANATOMY.—Lectures and laboratory work. In view of the shortness of the term, a rather small number of types will be dissected in the laboratory, and the attention will be concentrated on certain selected organs and systems of organs. Professor RICE.

I. RESEARCH WORK.—Students who desire, if properly qualified, may enter upon some faunal, ecological, or other problem. Professor OSBORN.

J. AQUATIC BIOLOGY.—This course will deal primarily with the fresh water forms of life occurring in Sandusky Bay, paying particular attention to the micro-organisms of both the animal and plant kingdom. It is desirable although not absolutely necessary, that students taking the course possess a reading knowledge of German and French. Occasional lectures and quizzes. Professor JONES.

BOTANY

A. GENERAL BOTANY.—Especially for teachers. Professor STICKNEY.

B. ECOLOGY.—Field and laboratory course, accompanied by lectures, quiz, and consultation of the literature. Professor STICKNEY.

C. SPECIAL WORK.—Subject selected may be Ecology, Morphology, or Systematic Botany. Professor STICKNEY.

For further information send for a special bulletin of the Lake Laboratory by addressing the University Editor, Ohio State University, Columbus, Ohio.

DEPARTMENTS OF INSTRUCTION

AGRICULTURAL CHEMISTRY

(Townshend Hall)

PROFESSOR VIVIAN, PROFESSOR WEBER, MR. DAVIS

13. GENERAL AGRICULTURAL CHEMISTRY. Five credit hours. Three terms. Prerequisite, Chemistry, 7, 12, and 42. *Tu., Th., at* 9. Laboratory, *M., Th.*, 1 to 4. Professor VIVIAN, Mr. DAVIS.

14. DOMESTIC SCIENCE CHEMISTRY. Five credit hours. Course in Domestic Science, first and second term. Prerequisite Chemistry, 7, 12, and 42. *M., F.*, at 9. Laboratory, *Tu., F.*, 1 *to* 4, *or Tu.*, 1 *to* 4, *S.*, 8 *to* 11. Professor VIVIAN, MR. DAVIS.

15. INDUSTRIES RELATED TO AGRICULTURE. Four credit hours. Three terms. Prerequisite, Course 13, or an equivalent preparation in quantitative analysis. Time to be arranged. Professor WEBER.

16. APPLICATION OF CHEMISTRY TO AGRICULTURE. Four credit hours. *M., Tu., Th., F., at* 8. Short Courses in Agriculture and Horticulture, third term. Professor VIVIAN.

17. ADVANCED AGRICULTURAL ANALYSIS. Five credit hours. Three terms. Prerequisite, Course 13. Professors WEBER and VIVIAN.

18. FOOD INSPECTION AND ANALYSIS. Three to five credit hours. Three terms. Prerequisite, Course 13, or an equivalent preparation in quantitative analysis. Professors WEBER and VIVIAN.

19. DAIRY CHEMISTRY. Three to five credit hours. Three terms. Prerequisite, Course 13. Time to be arranged. Professors VIVIAN and WEBER.

20. CHEMISTRY OF SOILS. Three to five credit hours. Three terms. For students specializing in Agronomy. Prerequisite, Course 13. Time to be arranged. Professors WEBER and VIVIAN.

21. ADVANCED HOUSEHOLD CHEMISTRY. Three to five credit hours. Three terms. Prerequisite, Course 14. Time to be arranged. Professors WEBER and VIVIAN.

22. RESEARCH WORK. Five to ten credit hours. Three terms. Time to be arranged. Professors WEBER and VIVIAN.

23. CHEMISTRY OF ANIMAL NUTRITION. Three to five credit hours. Three terms. Prerequisite, Course 13 or equivalent. Time to be arranged. Professor VIVIAN.

(Courses 17 to 23 may be taken as graduate work if not previously elected, or continued as special lines of research during a graduate course. Major graduate work may be taken along these or other lines included in Agricultural Chemistry.)

AGRONOMY
(Townshend Hall)

PROFESSOR MCCALL, ASSOCIATE PROFESSOR SHOESMITH, MR. HYSLOP

2. FARM EQUIPMENT. Four credit hours. First term. Prerequisite, Eng. Drawing 10. *M., W., F., at* 9; *W.*, 1 *to* 4. Professor MCCALL.

4. RURAL ENGINEERING. Five credit hours. Third term. Prerequisite, Agronomy 2. *Tu., Th., at* 9; *M., Tu.*, 1 *to* 4. Professor MCCALL.

11. ELEMENTARY SOILS. Four credit hours. Second term. Two-year Course in Agriculture. *M., W., F., at* 9; *W.*, 1 *to* 4. Professor MCCALL.

12. ELEMENTARY SOILS. Four credit hours. Four-year courses in Agriculture and Horticulture and Forestry, third term. *M., W., F., at* 8; *W. or F.*, 1 *to* 4. Professor MCCALL.

14. AVDANCED SOILS. Five credit hours. First term. Prerequisite, Agronomy 11 or 12. *Tu., Th., at* 9; *M., Tu.*, 1 *to* 4. Professor MCCALL.

16. FIELD WORK IN SOILS. Three credit hours. First term. Lecture arranged. *S.*, 8 *to* 12. Professor MCCALL.

22. FIELD CROP PRODUCTION. Four credit hours. Third term. Prerequisite, Botany 1, or its equivalent. *M., W., F., at* 9; *W.*, 1 *to* 4. Associate Professor SHOESMITH.

23. SEED AND MARKET GRAIN. First term. Two credit hours. Time to be arranged. Practicum. Prerequisite, Agronomy 22. Associate Professor SHOESMITH.

24. AGRICULTURAL EXPERIMENTATION. Four credit hours. Second term. Lecture arranged. *M., Tu.*, 1 *to* 4. Professor MCCALL.

26. FIELD CROP IMPROVEMENT. Three credit hours. Third term. Prerequisite, Agronomy 22. *Tu., Th., at* 10; *W.*, 1 *to* 4. Associate Professor SHOESMITH.

27. GRASSES AND FORAGE CROPS. Three credit hours. First term. Prerequisite, Botany 1 or its equivalent. *M., W., at* 9, *W.*, 1 *to* 4. Associate Professor SHOESMITH.

GRADUATE WORK

Special work in Soils, or Crops, may be arranged for students desiring to take a graduate course along these lines.

AMERICAN HISTORY AND POLITICAL SCIENCE

(Office, Room 207, University Hall)

*PROFESSOR KNIGHT, PROFESSOR SPENCER, ASSISTANT PROFESSOR ———, MR. DYKSTRA

I. AMERICAN HISTORY

1. POLITICAL HISTORY OF THE UNITED STATES. Three credit hours. Three terms. Sec. I, *M.*, *W.*, *F.*, *at* 8. Sec. II, *M.*, *W.*, *F.*, *at* 9. Sec. III, *M.*, *W.*, *F.*, *at* 1. Assistant Professor ————, Mr. DYKSTRA.

2. THE AMERICAN COLONIES, 1600–1763. Prerequisite, course 1. Should also be preceded or accompanied by European History 14. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 2.

4. THE SLAVERY STRUGGLE AND ITS RESULTS. 1800–1900. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 11. Given biennially, alternating with course 6. Prerequisite, course 1. Professor KNIGHT.

†6. AMERICAN DIPLOMACY, FOREIGN RELATIONS, AND EXPANSION. 1776–1900. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 11. Prerequisite, course 1. Given biennially, alternating with course 4. Professor KNIGHT.

7. POLITICAL PARTIES IN THE UNITED STATES. 1789–1900. Two credit hours. Three terms. *M.*, *F.*, *at* 10. Prerequisite, course 1. Given biennially. Mr. DYKSTRA.

10. SEMINARY FOR RESEARCH IN AMERICAN HISTORY AND POLITICAL SCIENCE. Two credit hours. Three terms. Time to be arranged. Prerequisite, two courses in American History and at least one course in Political Science. Professors KNIGHT and SPENCER.

11. THE TEACHING OF AMERICAN HISTORY. One credit hour. Three terms. *W.*, *at* 3. Professor KNIGHT.

*12. THE REVOLUTION AND CRITICAL PERIOD. 1763–1789. Two credit hours. Three terms. *M.*, *F.*, *at* 10. Prerequisite, course 1. Given biennially. Professor SPENCER.

13. GRADUATE COURSES. Three to ten credit hours. Professor KNIGHT.

14. GRADUATE SEMINARY IN AMERICAN HISTORY AND INSTITUTIONS. Open only to graduate students. Three terms. Time to be arranged. Professor KNIGHT.

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* Absent on leave, 1908–1909; courses will be given as announced.

† Not given in 1908–1909.

II. POLITICAL SCIENCE

1. CONSTITUTIONAL GOVERNMENT. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 9. Prerequisite, American History 1, or European History 1, 2, and 3, or 14, or a substitute acceptable to the department. This course must precede all other courses in Political Science except 4 and 5. Professor SPENCER and Mr. DYKSTRA.

4. INTERNATIONAL LAW. Two credit hours. First and second terms. *Tu.*, *Th.*, *at* 10. Prerequisite, one course in European History and one course in American History. Professor KNIGHT.

5. HISTORY OF TREATIES AND MODERN DIPLOMACY. Two credit hours. Third term. *Tu.*, *Th.*, *at* 10. Prerequisite, course 4. Professor KNIGHT.

6. THE GOVERNMENT OF COLONIES AND DEPENDENCIES. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 11. Prerequisite, course 1. Given biennially. Professor KNIGHT.

*8. MUNICIPAL GOVERNMENT AND PROBLEMS. Two credit hours. Three terms. *M.*, *F.*, *at* 3. Prerequisite, course 1. Given biennially, alternating with course 10. Professor SPENCER.

9. HISTORY OF THE ORIGIN AND DEVELOPMENT OF THE UNITED STATES CONSTITUTION. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 2. Prerequisite, course 1. Professor KNIGHT.

10. POLITICAL THEORIES. Two credit hours. Three terms. *M.*, *F.*, *at* 3. Given biennially, alternating with course 8. Professor SPENCER.

12. COMPARATIVE POLITICS. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 3. Prerequisite, course 1. Given biennially, alternating with course 13. Professor SPENCER.

*13. COMPARATIVE ADMINISTRATION. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 3. Prerequisite, course 1. Given biennially, alternating with course 12.

15. INTRODUCTION TO JURISPRUDENCE. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 9. Professor SPENCER.

ANATOMY AND PHYSIOLOGY

(Office, Room 12, Biological Hall)

PROFESSOR BLEILE, DR. SEYMOUR, DR. BEER

1. HUMAN ANATOMY AND PHYSIOLOGY. Three credit hours. Three terms. Sec. I, *M.*, *W.*, *F.*, *at* 8. Dr. SEYMOUR. Sec. II, *M.*, *Th.*, *F.*, *at* 10. Must be preceded or accompanied by a course in chemistry. Professor BLEILE.

* Not given in 1908–1909.

3. CHEMICAL PHYSIOLOGY. Three credit hours. Third term. *Th.*, *F.*, 1 *to* 4. Professor BLEILE.

4. HISTOLOGY AND HISTO-CHEMISTRY. Five credit hours. Three terms. *M.*, *Tu.*, *W.*, 1 *to* 4. Professor BLEILE, Dr. BEER, Dr. SEYMOUR.

5. MICROSCOPY AND URINARY ANALYSIS. Two credit hours. Third term. Professor BLEILE and Dr. SEYMOUR.

9. PHYSIOLOGICAL LABORATORY. Three credit hours. Three terms. Professor BLEILE.

11. PHYSIOLOGICAL LABORATORY. Five credit hours. Three terms. Professor BLEILE.

14. COMPARATIVE PHYSIOLOGY. Three credit hours. Veterinary Medicine, first year, second and third terms. Professor BLEILE.

ANCIENT ART

(See Greek Language and Literature)

ANIMAL HUSBANDRY

(Townshend Hall)

PROFESSOR PLUMB, PROFESSOR MARSHALL, MR. WILLIAMS

FOUR-YEAR COURSE

2. TYPES AND BREEDS OF LIVE STOCK. Four credit hours. First term. *M.*, *Tu.*, *Th.*, *at* 10; *M.*, 1 *to* 4. Professor PLUMB, Professor MARSHALL.

4. TYPES AND BREEDS OF LIVE STOCK. Four credit hours. Third term. *M.*, *Tu.*, *Th.*, *at* 10; *M.*, 1 *to* 4. Professor PLUMB, Professor MARSHALL.

6. PRINCIPLES OF BREEDING. Four credit hours. Second term. *M.*, *W.*, *F.*, *at* 9; *W.*, 1 to 4. Professor MARSHALL.

8. FEEDING ANIMALS. Four credit hours. Second term. *M.*, *Tu.*, *Th.*, *F.*, *at* 10. Professor PLUMB.

10. HYGIENE AND MANAGEMENT. Four credit hours. Second term. *M.*, *Tu.*, *Th.*, *Fr.*, *at* 8. Professor MARSHALL.

12. ANIMAL CONFORMATION AND STOCK JUDGING. Four credit hours. First term. *F.*, *at* 8; *Th.*, *F.*, 1 *to* 4. Professor PLUMB, Professor MARSHALL.

14. LIVE STOCK MARKETING AND COMMERCE. Four credit hours. Third term. *M.*, *W.*, *F.*, *at* 8; *F.*, 1 *to* 4. Professor PLUMB.

16. WOOLS AND OTHER ANIMAL FIBERS. Four credit hours. Second term. Time to be arranged. Professor PLUMB.

19. HIPPOLOGY. Two credit hours. First term. *Tu.*, *Th.*, *at* 11. Professor MARSHALL.

20. MEATS AND MEAT PRODUCTS Two credit hours. Second term. *Tu., Th., at* 11. Professor PLUMB.

21. THE HARNESS AND VEHICLE. Two credit hours. Third term. *Tu., Th., at* 11. Professor MARSHALL.

22. BIOGRAPHICAL STUDIES OF MASTER BREEDERS. One credit hour. Third term. Time to be arranged. Professor PLUMB.

23. TYPES AND CLASSES OF CATTLE AND SHEEP. Four credit hours. First term. *M., W., F., at* 11. *W.*, 1 *to* 4. Mr. WILLIAMS.

24. TYPES AND CLASSES OF HORSES AND SWINE. Four credit hours. Second term. *M., W., F., at* 11; *W.*, 1 *to* 4. Professor MARSHALL, Mr. WILLIAMS.

26. DAIRY CATTLE. Four credit hours. Third term. *M., W., F., at* 11; *W.*, 1 *to* 4. Professor PLUMB, Mr. WILLIAMS.

TWO-YEAR COURSE

1. TYPES AND BREEDS OF LIVE STOCK. Four credit hours. Three terms. *M., W., F., at* 9; *Tu.*, 8 to 11, *or* 1 *to* 4. Professor PLUMB, Professor MARSHALL.

3. FEEDING ANIMALS. Three credit hours. Second term. *M., W., F., at* 11. Mr. WILLIAMS.

5. PRINCIPLES OF BREEDING. Four credit hours. Third term. *M., W., F., at* 11. Laboratory to be arranged. Professor MARSHALL.

25. DAIRY CATTLE. Four credit hours. First term. *M., W., F., at* 11. Laboratory to be arranged. Professor PLUMB, Mr. WILLIAMS.

GRADUATE COURSES

GRADUATE WORK will be provided to suit the needs of the student. Special facilities will be furnished in the following: (a) Breed, history, and development; (b) animal nutrition; (c) heredity in its application to the horse; (d) the education and training of the horse; (e) wool and its uses; (f) live stock registration; (g) live stock markets; (h) live stock judging.

ARCHITECTURE

(Office, Room 22, Brown Hall)

PROFESSOR BRADFORD, ASSISTANT PROFESSOR CHUBB, MR. HASKETT

4. SPECIFICATIONS. Two credit hours, Architecture, fourth year, second term. *M.*, 1 *to* 5, and assigned work. Prerequisite, Architecture 18. Professor BRADFORD.

5. DECORATION AND ORNAMENT. Three credit hours. Architecture, third year, first term, *M., F.*, 9 *to* 12. Prerequisite, Drawing 37 and Architecture 14. Assistant Professor CHUBB.

33. PHOTOGRAPHY. Two credit hours. Architecture, third year, first term; Ceramics, fourth year, first term, *M.*, *Tu.*, 1 to 3, *or Th.*, *F.*, 1 *to* 3. Civil and Mechanical Engineering, third year, third term; Mine Engineering, fourth year, third term, *M.*, *Tu.*, 1 *to* 3, *or Th.*, *Fr.*, 1 *to* 3. Prerequisite, Chemistry 7 and Physics 2. Professor BRADFORD, Mr. HASKETT.

9. HISTORY OF ARCHITECTURE. Three credit hours. Architecture, second year, first term, *M.*, *W.*, *F.*, *at* 11. Professor BRADFORD.

10. Continuation of 9. Architecture, second year, second term, *M.*, *W.*, *F.*, *at* 9. Professor BRADFORD.

11. Continuation of 10. Architecture, second year, third term, *M.*, *W.*, *F.*, *at* 9. Professor BRADFORD.

12. THE ORDERS. Two credit hours. Architecture, second year, first term, *W.*, *Th.*, 1 *to* 3. Concurrent, Drawing 33 and Architecture 9. Assistant Professor CHUBB.

13. ORDER PROBLEMS. Three credit hours. Arhitecture, second year, second term, *W.*, *Th.*, *F.*, 1 *to* 4. Prerequisite, Architecture 12. Assistant Professor CHUBB.

14. Continuation of 13. Three credit hours. Architecture, second year, third term, *W.*, *Th.*, *F.*, 1 *to* 4. Concurrent, Architecture 11. Assistant Professor CHUBB.

15. RESIDENCE ARCHITECTURE. Four credit hours. Lectures and practise. Architecture, third year, first term, *M.*, *Tu.*, *W.*, 1 *to* 4. Prerequisite, Architecture 14, and Drawing 37. Professor BRADFORD.

17. SCHOOL ARCHITECTURE. Four credit hours. Architecture, third year, third term, *M.*, *Tu.*, *W.*, 1 *to* 4. Prerequisite, Architecture 23. Assistant Professor CHUBB.

18. PUBLIC BUILDINGS. Four credit hours. Architecture, fourth year, first term, *Tu.*, *Th.*, 9 *to* 12; *F.*, 1 *to* 4. Prerequisite, Architecture 17. Professor BRADFORD, Assistant Professor CHUBB.

19. ECCLESIASTICAL ARCHITECTURE. Four credit hours. Architecture, fourth year, third term, *M.*, *Tu.*, 1 *to* 5. Prerequisite, Architecture 21. Professor BRADFORD.

20. THESIS. Five credit hours. Architecture, fourth year, third term, *Tu.*, *Th.*, 9 *to* 12; *F.*, 1 *to* 5.

21. ARCHITECTURE OF TALL SKELETON-CONSTRUCTED BUILDINGS. Four credit hours. Architecture, fourth year, second term, *M.*, 10; *Tu.*, *Th.*, 9 *to* 11; *F.*, 1 *to* 5. Prerequisite, Architecture 18. Professor BRADFORD, Assistant Professor CHUBB.

22. PRINCIPLES OF ARCHITECTURAL COMPOSITION. Two credit hours. Architecture, third year, first term, *Tu., Th., at* 9. Concurrent, Architecture 5. Assistant Professor CHUBB.

23. DESIGNING. Modern apartment houses. Four credit hours. Architecture, third year, second term, *M., Tu., W.,* 1 *to* 4. Prerequisite, Architecture 15. Assistant Professor CHUBB.

24. STRUCTURAL DETAILS. Three credit hours. Architecture, third year, third term, *M., W., F., at* 8. Prerequisite, Architecture 15. Professor BRADFORD.

25. SANITARY PLUMBING. Two credit hours. Architecture, fourth year, first term, *M., W., at* 8. Professor BRADFORD.

26. ARCHITECTURAL PERSPECTIVE. Five credit hours. Architecture, second year, third term, *M., F.,* 10; *Tu., Th.,* 9 *to* 12. Assistant Professor CHUBB.

27. ARCHITECTURAL STEREOTOMY. Four credit hours. Architecture, third year, second term, *M., F.,* 9 *to* 12. *W., at* 11. Prerequisite, Drawing 36. Professor BRADFORD.

28. ESTIMATING. Two credit hours. Architecture, fourth year, third term, *W., at* 11; *F.,* 10 *to* 12. Professor BRADFORD.

29. PROFESSIONAL PRACTISE. Two credit hours. Architecture, fourth year, third term. *Tu., Th., at* 8. Professor BRADFORD.

30. MONUMENTAL DESIGN. Three credit hours. Architecture, fourth year, first term, *M., Tu.,* 1 *to* 4. Prerequisite, Architecture 17. Professor BRADFORD, Assistant Professor CHUBB.

31. SUMMER WORK. The equivalent of four weeks of work in an architect's office, eight hours a day. Summer vacation at end of sophomore or junior year.

32. SUMMER WORK. Working up a problem in design, assigned by the department, or a report on summer travel. Summer vacation at end of sophomore or junior year.

ART

(Office, Hayes Hall)

PROFESSOR BRACKEN, ASSISTANT PROFESSOR LAVER

1. THEORY AND PRACTISE OF TEACHING ART. Two credit hours. First term. Time to be arranged. Professor BRACKEN.

2. Continuation of 1. Two credit hours. Second term. Time to be arranged. Professor BRACKEN.

3. Continuation of 2. Two credit hours. Third term. Time to be arranged. Professor BRACKEN.

10. DESIGN AND COMPOSITION. Two credit hours. First term. *Th., or F.,* 1 *to* 4.

11. Continuation of 10. Two credit hours. Second term. *Th., or F.*, 1 *to* 4.

12. Continuation of 11. Two credit hours. Third term. *Th., or F.*, 1 *to* 4.

13. DESIGN AND COMPOSITION. Two credit hours. First term. Advanced work in Art 10. Prerequisite, Art 10.

14. DESIGN AND COMPOSITION. Two credit hours. Second term. Advanced work in Art 11. Prerequisite, Art 11.

15. DESIGN AND COMPOSITION. Two credit hours. Third term. Advanced work in Art 12. Prerqeuisite, Art 12.

16. DESIGN AND COMPOSITION. Three credit hours. First term. Prerequisites, Art 10, 11 and 12, or their equivalent.

17. DESIGN AND COMPOSITION. Three credit hours. Second term. Figure and animal motives. Prerequisites, same as for Art 16.

20. CHARCOAL DRAWING FROM STILL LIFE, NATURE, AND CASTS. One to three credit hours. First term. Time to be arranged. Professor BRACKEN.

21. CHARCOAL DRAWING FROM COSTUMED MODEL. One to three credit hours. Second term. Time to be arranged. Professor BRACKEN.

22. CHARCOAL DRAWING. LANDSCAPE AND STILL LIFE. One to three credit hours. Third term. Time to be arranged. Professor BRACKEN.

30. PENCIL DRAWING FROM STILL LIFE AND NATURE. One credit hour. First term. Time to be arranged. Professor BRACKEN.

31. PENCIL DRAWING FROM LIFE AND STILL LIFE. One credit hour. Second term. Time to be arranged. Professor BRACKEN.

32. PENCIL DRAWING OUT OF DOORS. One credit hour. Third term. Time to be arranged. Professor BRACKEN.

35. PAINTING IN OIL OR WATER COLOR. One to three credit hours. First term. Time to be arranged. Professor BRACKEN.

36. Continuation of 35. One to three credit hours. Second term. Time to be arranged. Professor BRACKEN.

37. LANDSCAPE. One to three credit hours. Third term. Time to be arranged. Professor BRACKEN.

40. CHARCOAL, PENCIL, OR PEN SKETCHING FROM LIFE. Professor BRACKEN.

41. FIGURE AND ANIMAL STUDIES IN CHARCOAL, PENCIL, INK, WATER COLOR, AND OIL. Second term. Rapid Sketching and Blackboard Drawing. Prerequisite, same as for Art 40.

42. LANDSCAPE IN ALL MEDIUMS. Third term. Rapid Sketching. Blackboard Drawing. Prerequisites, same as for Art 40.

43. STILL LIFE AND NATURE PAINTING. Four credit hours. First term. Prerequisites, Art 40, 41, and 42.

44. PAINTING FROM LIFE. Four credit hours. Second term. Prerequisites, same as for Art 43.

45. PAINTING FROM LIFE AND OUT-OF-DOORS. Four credit hours. Third term. Prerequisites, same as for Art 43.

50. DESIGN AND COMPOSITION. Three credit hours. First term. Advanced work along lines given in Art 16. Prerequisites, Art 16, 17 ,and 18.

51. DESIGN AND COMPOSITION. Three credit hours. Second term. Advanced work along lines given in Art 17. Prerequisites, same as for Art 50.

52. DESIGN AND COMPOSITION. Three credit hours. Third term. Advanced work along lines given in Art 18. Prerequisites, same as for Art 50.

ASTRONOMY

(Office, Emerson McMillin Observatory)

PROFESSOR H. C. LORD, MR. MANSON, MR. SMITH

1. GENERAL ASTRONOMY. Two credit hours. Three terms. *Tu., Th., at* 1. Mr. MANSON.

2. ASTRONOMY, GEODESY, AND LEAST SQUARES. Three credit hours. Three terms. *M., W., F., at* 11. Professor LORD and Mr. MANSON.

3. METEOROLOGY. Two credit hours. Third term. Time to be arranged. Mr. SMITH.

4. ASTRONOMY, GEODESY, AND LEAST SQUARES. Three credit hours. Civil Engineering, third year, first term. Lectures, *M., W., F., at* 11 *or* 1. Laboratory hours arranged with the students individually. Prerequisite Mathematics 43 and Physics 2. Professor LORD, Mr. MANSON.

5. Continuation of 4. Three credit hours. Civil Engineering, third year, second term. Lectures, *M., W., F., at* 9 *or* 11. Professor LORD, and Mr. MANSON.

6. Continuation of 5. Laboratory work. Four credit hours. Civil Engineering, third year, third term, *M., W., F., at* 11; *M., Tu.,* 1 *to* 4, *or M., F., at* 10; *W., at* 1; *W., Th.,* 1 *to* 4. Professor LORD, and Mr. MANSON.

7. ADVANCED ASTRONOMY. Three to five credit hours. Three terms. Prerequisite, calculus. Professor LORD.

BACTERIOLOGY

(Second Floor, Veterinary Laboratory)

PROFESSOR MORREY, MR. MC CAMPBELL, MR. GROSVENOR

1. BACTERIOLOGY. Two credit hours. Short Pharmacy, second year, first and second terms. *M. F., at* 10.

2. AGRICULTURAL BACTERIOLOGY. Three credit hours. Second term. Two-year courses in Agriculture and Horticulture.

4. BACTERIOLOGY. Three credit hours. Veterinary Medicine, second year, first term. *M.*, 10; *Tu., Th.*, 10 *to* 12.

5. GENERAL BACTERIOLOGY. Three to five credit hours. First term. Lectures, *Tu., at* 9, *or M., at* 11; quiz, *Th., at* 9, *or F., at* 11; laboratory, *Tu., Th., or W., F.*, 1 *to* 4. Professor MORREY, Mr. MCCAMPBELL, Mr. GROSVENOR.

6. IMMUNITY AND SERUM THERAPY. Three to five credit hours. Three terms. Lectures, *M., F., at* 11; laboratory, to be arranged. Prerequisites 5 and 7, or equivalents. Mr. MCCAMPBELL.

7. PATHOGENIC BACTERIA. Three to five credit hours. Second and third terms. Lectures, *M., at* 11; quiz, *F., at* 11; laboratory, *W., F.*, 1 *to* 4. Prerequisite 5. Professor MORREY, Mr. MCCAMPBELL, Mr. GROSVENOR.

8. DAIRY BACTERIOLOGY. Three to five credit hours. Second and third terms. Lecture, *M., at* 10; quiz, *F., at* 10; laboratory, *Tu., Th.*, 1 *to* 4. Prerequisite, Course 5. Professor MORREY.

9. SOIL BACTERIOLOGY. Three to five credit hours. Second and third terms. Lecture, *Tu., at* 10; quiz, *Th., at* 10; laboratory, *Tu., Th.*, 1 *to* 4. Prerequisite, Course 5. Professor MORREY.

10. WATER EXAMINATION, SEWAGE DISPOSAL, WATER FILTRATION. Three to five credit hours. Second and third terms. Prerequisite 5. Lecture, *Tu., at* 11; quiz, *Th., at* 11; laboratory, *M., W.*, 1 *to* 4. Professor MORREY.

11. BACTERIOLOGICAL CHEMISTRY (enzymes). Three to five credit hours. Second and third terms. One lecture, one quiz, two to six hours laboratory work. Prerequisite 5. Time to be arranged. Professor MORREY.

12. PATHOGENIC PROTOZOA. Three to five credit hours. Three terms. Two lectures, two to six hours laboratory work. Prerequisites 5 and 7, or equivalents. Mr. MCCAMPBELL.

13. ADVANCED DAIRY BACTERIOLOGY. Three to five credit hours. Three terms. Prerequisites, Courses 5 and 8, or equivalents. Professor MORREY.

14. ADVANCED SOIL BACTERIOLOGY. Three to five credit hours Three terms. Prerequisites, Courses 5 and 9, or equivalents. Professor MORREY.

15. SPECIAL PROBLEMS IN BACTERIOLOGICAL CHEMISTRY. Three to five credit hours. Three terms. Conferences, library, and laboratory work. Prerequisites 5 and 7, or equivalents. Professor MORREY.

BOTANY

(Office, Botanical Hall)

PROFESSOR KELLERMAN, ASSOCIATE PROFESSOR SCHAFFNER, ASSISTANT PROFESSOR GRIGGS, MISS DETMERS, DR. DACHNOWSKI

UNDERGRADUATE COURSES

1. ELEMENTARY BOTANY. Four credit hours. Short Pharmacy, first year, third term. *M.*, *Tu.*, *Th.*, *F.*, 8 *or* 10. Professor KELLERMAN, Miss DETMERS.

3. SYSTEMATIC AND PHYSIOLOGICAL BOTANY. Four credit hours. First term. *M.*, *Tu.*, *F.*, *at* 10. Laboratory, *Th.*, 10 *to* 12. Professor KELLREMAN, Miss DETMERS.

4. MEDICAL BOTANY. Two credit hours. Second term. *M.*, *Tu.*, 10 *to* 12. Miss DETMERS.

6. PHYSIOLOGICAL BOTANY. Four credit hours. Agriculture, Horticulture, second year, and Pharmacy, first year, first term. *Tu.*, *Th.*, *at* 11; *M.*, *Th.*, *or Tu.*, *F.*, 1 *to* 3. Text-book, Barnes' Plant Life. Professor KELLERMAN, Assistant Professor GRIGGS.

7. ECONOMIC BOTANY. Four credit hours. Agriculture, Horticulture, second year, and Pharmacy, first year, second term. *Tu.*, *Th.*, *at* 11; *M.*, *Th.*, *or Tu.*, *F.*, 1 *to* 3. Professor KELLERMAN, Assistant Professor GRIGGS.

8. VEGETABLE PATHOLOGY. Four credit hours. Agriculture, Horticulture, second year, and Pharmacy, first year, third term. *Tu.*, *Th.*, *at* 11; *M.*, *Th.*, *or Tu.*, *F.*, 1 *to* 3. Professor KELLERMAN, Assistant Professor GRIGGS.

9. DENDROLOGY. Two credit hours. Three terms. *M.*, *Th.*, 10 *to* 12. Miss DETMERS.

11. LABORATORY WORK IN ECONOMIC BOTANY. Two to five credit hours. Three terms. Laboratory open daily 8 *to* 12.

13. PHYSIOLOGICAL, ECONOMIC AND HOUSEHOLD BOTANY. Three credit hours. Three terms. Prerequisite, Elementary Botany. Lecture, *W.*, *at* 11; laboratory, *M.*, *W.*, 1 *to* 3. Professor KELLERMAN, Miss DETMERS.

15. EDIBLE AND POISONOUS MUSHROOMS. One to three credit hours. Laboratory and field work. Three terms. Prerequisite Elementary Botany. Laboratory open daily, 8 *to* 12. Professor KELLERMAN.

16. LABORATORY WORK ON MEDICINAL PLANTS, ETC. Two to five credit hours. Laboratory open daily 8 *to* 12. Professor KELLERMAN, Miss DETMERS.

17. FOREST BOTANY. Three terms. Four credit hours. Lectures, *Tu., Th., at* 3. Laboratory, *Tu., Th.*, 1 *to* 3. Prerequisite, 6, 7 and 8, or 21. Associate Professor SCHAFFNER.

20. FIELD WORK ON LOCAL FLORA. Two credit hours. First or third term. *S.*, all day. Prerequisite, Elementary Botany. Assistant Professor GRIGGS.

21. GENERAL BOTANY. Three credit hours. Three terms. Lecture, *W., at* 9; laboratory, *Tu. Th.*, 8 *to* 10. Associate Professor SCHAFFNER.

24. LABORATORY AND FIELD WORK. Two or three credit hours. Three terms, daily, 8 to 12. Professor KELLERMAN, Associate Professor SCHAFFNER, Assistant Professor GRIGGS.

25. LABORATORY WORK IN MORPHOLOGY. Three to five credit hours. Three terms. Laboratory open daily. Prerequisite, courses 6, 7, 8, or 21. Associate Professor SCHAFFNER, Assistant Professor GRIGGS.

26. ADVANCED LABORATORY WORK IN HISTOLOGY, CYTOLOGY, AND MICROTECHNIQUE. Five credit hours. Three terms. Laboratory open daily. Prerequisite, 25. Associate Professor SCHAFFNER.

27. LABORATORY AND FIELD WORK IN SYSTEMATIC BOTANY. Three to five credit hours. Three terms. Laboratory open daily. Prerequisite, 6, 7, 8, or 21, 22, 23. Professor KELLERMAN.

32. MINOR INVESTIGATIONS. One to three credit hours. Three terms. Prerequisite, 6, 7, 8, or 21, 22, 23. Professor KELLERMAN, Associate Professor SCHAFFNER.

33. CURRENT LITERATURE. One to three credit hours. Three terms. Prerequisite, 6, 7, 8, or 21, 22, 23. Professor KELLERMAN.

GRADUATE WORK

28. RESEARCH WORK IN SYSTEMATIC BOTANY. Five credit hours. Three terms. Laboratory open daily. Prerequisite, 6, 7, 8, or 21, 22, 23. Professor KELLERMAN.

29. RESEARCH WORK IN MORPHOLOGY AND CYTOLOGY. Five or ten credit hours. Three terms. Laboratory open daily. Prerequisite, 26 or equivalent. Associate Professor SCHAFFNER.

30. MONOGRAPHIC WORK. Five or ten credit hours. Three terms. Prerequisite, 27. Professor KELLERMAN.

31. RESEARCH IN ECOLOGY. Five or ten credit hours. Three terms. Prerequisite, 25, or equivalent. Associate Professor SCHAFFNER.

35. EVOLUTION OF PLANTS. One credit hour. Three terms.

36. SEMINARY. One credit hour. Three terms.

CHEMISTRY

(Office, Chemical Hall)

PROFESSOR MC PHERSON, EMERITUS PROFESSOR NORTON, ASSOCIATE PROFESSORS HENDERSON, FOULK, ASSISTANT PROFESSORS EVANS, WITHROW, MR. VOGT, MR. MORRIS, MR. SCHORGER, MR. LUCAS, AND DEPARTMENT FELLOWS

3. ELEMENTARY CHEMISTRY. Four credit hours. First and second terms. Lectures, *M.*, *at* 10; quiz, *Th.*, *at* 8. Laboratory, *M.*, *Tu.*, 1 *to* 4. Assistant Professor EVANS, Assistant Professor WITHROW, Mr. VOGT, Mr. MORRIS, and department fellows.

7. ELEMENTARY CHEMISTRY. Four credit hours. First and second terms. Lecture, *M.*, *at* 8 *or* 3; quiz, *F.*, *at* 8, 10, 11, 1 *or* 3. Laboratory, *M.*, *F.*, 9 *to* 12; *Tu.*, *Th.*, 9 to 12; *M.*, *Tu.*, 1 *to* 4; *Th.*, *F.*, 1 *to* 4, *or W.*, 8 *to* 10; *S.*, 8 *to* 12. Assistant Professor EVANS, Assistant Professor WITHROW, Mr. VOGT, Mr. MORRIS, and department fellows.

This course is arranged for students who have not presented chemistry as an entrance requirement. Students taking this course will follow with course 12, third term.

44. GENERAL CHEMISTRY. Four credit hours. First and second terms. Lecture, *W.*, *at* 9; quiz, *F.*, *at* 8, 9, or 3; laboratory, same as for Chemistry 7, except the *W.*, *or S.* section is omitted. Professor MCPHERSON, Associate Professor HENDERSON, Assistant Professor EVANS, Assistant Professor WITHROW, Mr. VOGT, Mr. MORRIS, and department fellows.

This course is arranged for students who have had an acceptable course in elementary chemistry in a secondary school. Students taking this course will follow with course 12, the third term.

12. QUALITATIVE ANALYSIS. Four credit hours. Third term. Prerequisite, Chemistry 7 or 44. Lecture, *M.*, 8 *or* 3; quiz and laboratory hours, same as scheduled for Chemistry 7 or 44. Assistant Professor EVANS, Assistant Professor WITHROW, Mr. VOGT, Mr. MORRIS, and department fellows.

45. QUALITATIVE ANAYLSIS. Four credit hours. Third term. Prerequisite, Chemistry 3. Time same as Chemistry 3. Assistant Professor EVANS, Assistant Professor WITHROW, Mr. VOGT, Mr. MORRIS, and department fellows.

21. ADVANCED GENERAL CHEMISTRY. Two credit hours. First, second, and third terms. Two lectures weekly. *Tu.*, *Th.*, *at* 9. Prerequisite, Chemistry 7 or 44. Associate Professor HENDERSON.

37. QUALITATIVE ANALYSIS. Four credit hours. First term. One lecture, nine hours laboratory work weekly. Time to be arranged. Prerequisite, Chemistry 7 or 44. Associate Professor FOULK, Mr. SCHORGER.

20. QUANTITATIVE ANALYSIS. Four credit hours. First, second, and third terms. One lecture, nine hours laboratory work weekly. Lecture, *M.*, *at* 1. Laboratory open afternoons. Prerequisite, Chemistry 12 or 37. Associate Professor FOULK, Mr. SCHORGER.

40. CHEMICAL PROBLEMS. One credit hour. First and second terms. *Th.*, *at* 11. Associate Professor FOULK.

34. ORGANIC CHEMISTRY. Five credit hours. First and second terms. *Tu.*, *Th.*, *at* 9; *M.*, *Tu.*, 1 *to* 4. Assistant Professor WITHROW.

42. ELEMENTARY ORGANIC CHEMISTRY. Two credit hours. Third term. *Tu.*, *Th.*, *at* 10. Assistant Professor EVANS.

46. ORGANIC CHEMISTRY. Two credit hours. First, second, and third terms. Two lectures weekly. *Tu.*, *Th.*, *at* 8. Prerequisite, courses 20, and 21, except by special permission of the instructor. Whenever possible this course should be accompanied by Chemistry 47. Professor MCPHERSON.

47. ORGANIC CHEMISTRY. Two or three credit hours. First, second, and third terms. Six or nine hours laboratory work weekly. Laboratory open afternoons. This course must be accompanied or preceded by course 46. Professor MCPHERSON, Mr. LUCAS.

15. SANITARY ANALYSIS. Four credit hours. Second term. Two lectures, four hours laboratory work weekly. Lectures, *Tu.*, *Th.*, *at* 10. Laboratory open afternoons. Prerequisite, Chemistry 20. Associate Professor FOULK.

48. QUALITATIVE ANALYSIS. Advanced course. Three to five credit hours. First term. One lecture, six to twelve hours laboratory work weekly. Time to be arranged. Prerequisite, Chemistry 20. Associate Professor FOULK.

49. QUANTITATIVE ANALYSIS. Advanced course. Three to five credit hours. Second and third terms. One lecture, four to twelve hours laboratory work weekly. Time to be arranged. Prerequisite, Chemistry 20. Associate Professor FOULK.

30. PHYSICAL CHEMISTRY. Three credit hours. First and second terms. Three lectures weekly. *M.*, *W.*, *F.*, *at* 8. Prerequisite, Chemistry 20, 21; also course 46, except by special permission of the instructor. Ceramic Engineering, third year, second term, *M.*, *W.*, *F*, *at* 8. Associate Professor HENDERSON.

50. PHYSICAL CHEMISTRY. Three credit hours. Third term. Nine hours laboratory work weekly. Time to be arranged with instructor. Prerequisite, Chemistry 30. Associate Professor HENDERSON.

41. PHYSICAL CHEMISTRY. Three credit hours. First, second, and third terms. Nine hours laboratory work weekly. Laboratory open afternoons. Prerequisite, Chemistry 30. Associate Professor HENDERSON.

32. INDUSTRIAL CHEMISTRY. Four credit hours. First and second terms. Two lectures, six hours laboratory work weekly. *Tu.*, *Th.*, *at* 8. Laboratory, *W.*, *Th.*, 1 *to* 4. Prerequisite, Chemistry, 20, 21, 46, 47. Assistant Professor WITHROW.

35. RARE ELEMENTS. Three credit hours. Third term. Three lectures weekly. *M.*, *W.*, *F.*, *at* 8. Prerequisite, Chemistry 20 and 21; also 40, except by special permission of the instructor. Associate Professor HENDERSON.

71. TECHNICAL ANALYSIS. Four credit hours. Third term. One lecture, nine hours laboratory work weekly. Lecture, *Tu.*, *at* 11. Laboratory open afternoons. Prerequisite, course 20. Associate Professor FOULK.

17. INORGANIC PREPARATIONS. Three credit hours. Third term. Nine hours laboratory work weekly. Laboratory open afternoons. Prerequisite, courses 20, 21, and the permission of the instructor. Associate Professor HENDERSON.

27. ORGANIC CHEMISTRY. Advanced course. Three to five credit hours. First, second, and third terms. Library and laboratory work. Time arranged with instructor. Prerequisite, courses 46 and 47. Professor MCPHERSON.

25. HISTORICAL CHEMISTRY. Three credit hours. Second term. Three lectures weekly, *M.*, *Tu.*, *Th.*, *at* 11. Prerequisite, permission of the instructor. Associate Professor HENDERSON.

26. CHEMICAL SEMINARY. One credit hour. First, second, and third terms. *W.*, *at* 11. For advanced and graduate students.

36. THE TEACHING OF CHEMISTRY. Two credit hours. Third term. Two lectures weekly. Time to be arranged with instructor. Prerequisite, permission of the instructor. Professor MCPHERSON.

72. APPLIED ELECTRO-CHEMISTRY. Three credit hours. Second and third terms. One lecture, six hours laboratory work weekly. Time to be arranged with instructor. Prerequisite, courses 20, 21, 46, 47. Assistant Professor WITHROW.

28. ORGANIC CHEMISTRY. Two credit hours. Third term. Two lectures weekly. Prerequisite permission of the instructor. Professor MCPHERSON.

73. INORGANIC PREPARATIONS. Three credit hours. First, second, and third terms. Library and laboratory work. Time to be arranged with instructor. Prerequisite, permission of the instructor. Associate Professor HENDERSON.

74. INORGANIC CHEMISTRY. Two credit hours. First term. Two lectures weekly. *Tu., Th., at* 8. Prerequisite, permission of the instructor. Associate Professor HENDERSON.

75. ANALYTICAL CHEMISTRY. Two credit hours. Second term. Two lectures weekly. Time to be arranged. Prerequisite, permission of the instructor. Associate Professor FOULK.

*76. ORGANIC CHEMISTRY. Two credit hours. Third term. Two lectures weekly. Time to be arranged. Prerequisite, permission of the instructor. Assistant Professor EVANS.

This course is arranged for graduate students only and is offered biennially, alternating with course 28.

77. THE READING OF CHEMICAL LITERATURE. Two credit hours. First term. Time to be arranged. Prerequisite, German 1. Associate Professor FOULK.

78. INDUSTRIAL INSPECTION TRIPS. A four to six days excursion taken at a suitable time in connection with Chemistry 32 for the inspection of industrial chemical processes in actual operation.

79. WRITTEN REPORTS. A course of assigned reading upon some industrial chemical process upon which a written report must be made as a substitute for Course 78, upon presentation of reasons satisfactory to the head of the department.

29. RESEARCH WORK. Five to ten credit hours. First, second, and third terms. Library and laboratory work. Time arranged with instructor. Professor MCPHERSON, Associate Professors HENDERSON and FOULK, Assistant Professors EVANS and WITHROW.

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* Not given in 1908–1909.

CIVIL ENGINEERING

(Office, Brown Hall, Room 33)

PROFESSOR SHERMAN, PROFESSOR ENO, ASSOCIATE PROFESSOR MORRIS ASSISTANT PROFESSOR SCHLAFLY, MR. CHAMBERLIN, MR. WARD.

3. TOPOGRAPHIC SURVEYING. Four credit hours. Lectures, field work, and drawing, Johnson's Surveying used for reference. Civil Engineering, third year, first term, *M.*, *F.*, *at* 10; *Tu.*, *Th.*, 1 *to* 4; *S.*, 8 *to* 11; *or Tu.*, *Th.*, *at* 10; *M.*, *W.*, *F.*, 1 *to* 4. Prerequisite, Civil Engineering 32 and 22. Assistant Professor SCHLAFLY, Mr. CHAMBERLIN.

4. TOPOGRAPHICAL DRAWING. Four credit hours. Platting, pen and tinted work. Reed's Topographic Drawing and Sketching. Civil Engineering, second year, second term, *M.*, *Tu.*, 1 *to* 4; *W.*, 1 *to* 3, *or Th.*, *F.*, 2 *to* 4; *S.*, 8 *to* 12. Prerequisite, Drawing 26 and 32. Professor SHERMAN, Professor ENO.

6. STEREOTOMY. Four credit hours. Recitations, lectures, and drawing. Warren's Stereotomy. Civil Engineering, third year, second term, *M.*, *F.*, *at* 10; *S.*, 8 *to* 12, *or Tu.*, *Th.*, *at* 10; *S.*, 8 *to* 12. Prerequisite, Drawing 36. Professor SHERMAN, Assistant Professor SCHLAFLY, Mr. CHAMBERLIN.

7. BRIDGE STRESSES. Five credit hours. Recitations and lectures, Heller's Stresses in Structures. Civil Engineering, third year, third term, *M.*, *Tu.*, *W.*, *Th.*. *F.*, 8 *or* 9. Prerequisite, Mechanics 2. Associate Professor MORRIS.

8. BRIDGE DESIGNING. Five credit hours. Lectures and drawings. Morris's Notes and Johnson's Modern Framed Structures used for reference. Civil Engineering, fourth year, first term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8, *or* 9. Prerequisite, Civil Engineering 7. Associate Professor MORRIS.

10. SANITARY ENGINEERING. Five credit hours. Recitations and lectures. Folwell's Sewerage. Civil Engineering, fourth year, third term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Prerequisite, Civil Engineering 34. Professor ENO.

14. CIVIL ENGINEERING LABORATORY. Two credit hours. Civil Engineering, fourth year, second term, *M.*, 1 *to* 4; *Tu.*, *at* 1, *or Tu.*, 1 *to* 4; *W.*, *at* 1. Prerequisite, Civil Engineering 34. Professor ENO, Mr. WARD.

16. HIGHWAYS. Five credit hours. Recitations and lectures. Baker's Roads and Pavements. Civil Engineering, third year, first term. *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8 *or* 9. Prerequisite, Civil Engineering 32. Professor ENO.

17. RAILWAY LOCATION. Five credit hours. Recitations and lectures. Wellington's Economic Theory of Railway Location. Option, Civil Engineering, fourth year, second term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Prerequisite, Civil Engineering 34. Professor SHERMAN.

18. WATER SUPPLY. Five credit hours. Recitations and lectures. Turneaure and Russell's Public Water Supplies. Civil Engineering, fourth year, third term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8. Prerequisite, Civil Engineering 34. Professor ENO.

19. TRUSSES. Five credit hours. Lectures and drawings. Ceramics, fourth year, second term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Architecture, Mining, and Mechanical Engineering, third year, third term, *M.*, *Tu.*, *Th.*, *F.*, *at* 10; *W.*, *at* 2; *or M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 11. Prerequisite, Mechanics 2. Associate Professor MORRIS.

21. SURVEYING. Three credit hours. Architecture and Industrial Arts, fourth year, third term, *M.*, *W.*, *F.*, *at* 9. Prerequisite, Drawing 32, and Mathematics 14 or 32. Mr. CHAMBERLIN, Mr. WARD.

22. SUMMER FIELD WORK. At conclusion of second year of course in Civil Engineering. Prerequisite, Civil Engineering 32 and 4. Professor SHERMAN. Professor ENO, Assistant Professor SCHLAFLY, Mr. CHAMBERLIN, Mr. WARD.

23. ADVANCED SUMMER FIELD WORK. Similar to 22. At conclusion of third year of Course in Civil Engineering. Prerequisite, Civil Engineering, 3, 32, and 24.

24. TIMBER CONSTRUCTION. Five credit hours. Civil Engineering, third year, second term, *M.*, *Tu.*, *W.*, 1 *to* 5; *or W.*, *Th.*, *F.*, 1 *to* 5. Prerequisite, Drawing 35 and Mechanics 1. Assistant Professor SCHLAFLY, Mr. CHAMBERLIN.

25. ADVANCED BRIDGE WORK. Five credit hours. Draw-spans, continuous girders, steel arches, etc. Option, Civil Engineering, fourth year, second term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8. Prerequisite, Civil Engineering 8. Associate Professor MORRIS.

27. TIMBER AND MASONRY. Three credit hours. Industrial Arts and Mechanical Engineering, third year, last three-fifths of second term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Concurrent. Industrial Arts 4 or Mechanics 2. Assistant Professor SCHLAFLY.

28. STEEL CONSTRUCTION. Five credit hours. Architecture, fourth year, second term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 11. Prerequisite, Civil Engineering 19. Associate Professor MORRIS.

29. CEMENT TESTING. Three credit hours. Architecture, fourth year, second term, *Tu.*, *W.*, 1 to 4. Prerequisite, Civil Engineering 34. Professor ENO, Mr. WARD.

30. SURVEYING. Five credit hours. Civil Engineering, second year, first term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8 *or* 11. Prerequisite, Mathematics 14 or 32. Professors SHERMAN, ENO, Assistant Professor SCHLAFLY, Mr. CHAMBERLIN, Mr. WARD.

31. FIELD PRACTISE IN SURVEYING. One credit hour. Civil Engineering, second year, first term. Concurrent, Civil Engineering 30.

32. RAILROAD SURVEYING. Five credit hours. Civil Engineering, second year, third term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8 *or* 11. Prerequisite, Civil Engineering 30 and 31. Professors SHERMAN, ENO, Assistant Professor SCHLAFLY, Mr. CHAMBERLIN, Mr. WARD.

33. FIELD PRACTISE IN RAILROAD SURVEYING. One credit hour. Civil Engineering, second year, third term. Concurrent, Civil Engineering 32.

34. MASONRY CONSTRUCTION. Three credit hours. Civil Engineering and Architecture, fourth year, first term, *M.*, *W.*, *F.*, *at* 8 *or* 9. Prerequisite, Mechanics 2. Text-book: Baker's Masonry Construction. Professor SHERMAN.

35. MASONRY STRUCTURES. Three credit hours. Civil Engineering, fourth year, second term, *M.*, *Tu.*, *Th.*, *at* 10. Prerequisite, Civil Engineering 34. Professor SHERMAN.

CLAY WORKING AND CERAMICS

(Office, School of Mines Building)

PROFESSOR ORTON, ASSISTANT PROFESSOR PURDY, MR. KNOTE, MR. WORCESTER

1. CERAMIC CHEMISTRY. Five credit hours. Ceramics and Short Clay-working, second year, first term. *M.*, *Tu.*, *W.*, 1 *to* 4. Prerequisite, Chemistry 12 or 45. Assistant Professor PURDY, and Mr. KNOTE.

2. Continuation of 1. Five credit hours. Ceramics and Short Clay-working, second year, second term. *M.*, *Tu.*, *W.*, 1 *to* 4. Assistant Professor PURDY, and Mr. KNOTE.

3. Continuation of 2. Three credit hours. Ceramics, second year, third term. *M.*, *Tu.*, *W.*, 1 *to* 4. Assistant Professor PURDY, and Mr. KNOTE.

4. CLAY MANUFACTURE. Five credit hours. Ceramics, third year, first term; Short Clay-working, second year, first term. *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8. Concurrent, Ceramics 1. Professor ORTON.

5. Continuation of 4. Five credit hours. Ceramics, third year; Short Clay-working, second year, second term. *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Professor ORTON.

6. Continuation of 5. Five credit hours. Ceramics, third year; Short Clay-working, second year, third term. *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Professor ORTON.

9. LABORATORY WORK IN CERAMICS. Five credit hours. Ceramics, fourth year, first term. *W.*, *Th.*, *F.*, 1 *to* 4. Prerequisite, Ceramics 3 and 6. Professor ORTON, Mr. WORCESTER.

10. Continuation of 9. Five credit hours. Ceramics, fourth year, second term. *M.*, *W.*, *F.*, 1 to 4. Professor ORTON, Mr. WORCESTER.

11. Continuation of 10. Five credit hours. Alternative with Ceramics 12. Ceramics, fourth year, third term. *M.*, *W.*, *F.*, 1 *to* 4. Professor ORTON, Mr. WORCESTER.

12. CEMENT MANUFACTURE. Five credit hours. Alternative with Ceramics 11. Ceramics, fourth year, third term. *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8. Prerequisite, Ceramics 3 and 6. Assistant Professor PURDY.

15. THESIS.

18. CEMENT MANUFACTURE. Five credit hours. Elective course. Laboratory. Time to be arranged. Prerequisite, Ceramics 12. Assistant Professor PURDY.

19. STOICHIOMETRY. Five credit hours. Short Clay-working, second year, third term. *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 11. Prerequisite, Ceramics 1 and 2. Assistant Professor PURDY.

20. LABORATORY WORK IN CERAMICS. Two credit hours. Short Clay-working, second year, first term. *Th.*, *F.*, 1 *to* 4. Prerequisite, Chemistry 45. Concurrent, Ceramics 1. Professor ORTON, Mr. WORCESTER.

21. LABORATORY WORK IN CERAMICS. Two credit hours. Short Clay-working, second year, second term, *Th.*, *F.*, 1 *to* 4. Prerequisite, Ceramics 20. Professor ORTON, Mr. WORCESTER.

23. LABORATORY WORK IN CERAMICS. Seven credit hours. Short Clay-working, second year, third term. *M.*, *Tu.*, *W.*, *Th.*, *F.*, 1 *to* 4. Prerequisite, Ceramics 2 and 5. Professor ORTON, Mr. WORCESTER.

24. CERAMIC CALCULATIONS. Two credit hours. Ceramics, second year, third term. *Tu.*, *Th.*, *at* 10. Prerequisite, Ceramics 2. Concurrent, Ceramics 3. Assistant Professor PURDY.

25. CLASSIFICATION AND IDENTIFICATION OF CLAYS. Two credit hours. Ceramics, third year, second term, *Tu.*, 1 *to* 4; *S.*, 8 *to* 11. Prerequisite, Ceramics 4. Concurrent, Ceramics 5. Professor ORTON, Mr. WORCESTER.

26. PHYSICAL AND CHEMICAL MEASUREMENTS OF CLAYS. Five credit hours. Ceramics, third year, third term, *W.*, *Th.*, *F.*, 1 *to* 4 Prerequisite, Chemistry 30, Physics 2 and 3, and Ceramics 5. Assistant Professor PURDY.

DAIRYING

(Townshend Hall)

PROFESSOR ERF, MR. GUTHRIE, MR. NYSTROM
TWO AND FOUR-YEAR COURSES

12. PRINCIPLES OF DAIRYING. First term. Four credit hours. *Tu.*, *Th.*, 1 *to* 2. Laboratory, *Tu.*, *Th.*, 2 *to* 4. Professor ERF.

14. BUTTERMAKING. Five credit hours. Third term. Prerequisite, Dairying 12. Time to be arranged. Mr. GUTHRIE.

16. CHEESE AND FANCY DAIRY PRODUCTS. Five credit hours. Second term. Time to be arranged. MR. GUTHRIE.

19. MILK INSPECTION. Two credit hours. Veterinary Medicine, third term, first year. Professor ERF.

20. HOUSEHOLD DAIRYING. Two credit hours. Third term. Time to be arranged. Professor ERF.

22. DAIRY MECHANICS. Three credit hours. First term. Mr. NYSTROM.

23. ADVANCED DAIRYING. Three credit hours. Second and third terms. Professor ERF.

24. DAIRY EQUIPMENT. Four credit hours. Second term. *Tu.*, *Th.*, *at* 1. Laboratory, *Tu.*, *Th.*, 2 *to* 4. Professor ERF.

26. FARM DAIRYING. Four credit hours. Third term. *Tu.*, *Th.*, 1 *to* 4. Laboratory, *Tu.*, *Th.*, 2 *to* 4. Professor ERF.

DOMESTIC SCIENCE

(Office, Rooms 1, 3, and 10, Hayes Hall)

PROFESSOR WARDALL, ASSOCIATE PROFESSOR BABB
DOMESTIC SCIENCE

1. THE SELECTION AND PREPARATION OF FOODS. Four credit hours. First term. *Tu.*, *Th.*, *at* 9; *Th.*, *F.*, 1 *to* 3. or *Tu.*, 10 *to* 12; *W.*, 8 *to* 10. Professor WARDALL.

2. Continuation of 1. Four credit hours. Second term. *Tu.*, *Th.*, *at* 9; *Th.*, *F.*, 1 *to* 3, *or* *Tu.*, 10 *to* 12; *W.*, 8 *to* 10. Professor WARDALL.

3. Continuation of 2. Four credit hours. Third term. *Tu.*, *Th.*, *at* 9; *Th.*, *F.*, 1 *to* 3, *or* *Tu.*, 10 *to* 12; *W.*, 8 *to* 10. Professor WARDALL.

4. DIETETICS. First term. Four credit hours. *Tu., Th., at* 8; *M., Tu.,* 1 *to* 3. Prerequisite, Domestic Science, 1, 2, 3; Physiology 1, and Agricultural Chemistry 14. Professor WARDALL.

10. THE HOUSE. Three credit hours. First term. Time to be arranged. Professor WARDALL.

11. HOUSEHOLD MANAGEMENT. Three credit hours. Second term. Prerequisite, Courses 1, 2, 3, and 4. Time to be arranged. Professor WARDALL.

12. TEACHERS. COURSE. Three credit hours. Third term. Time to be arranged. Professor WARDALL.

13. SEMINARY. Two credit hours. Three terms. Open only to fourth year and graduate students. Time to be arranged. Professor WARDALL.

DOMESTIC ART

1. HAND CRAFT. Two credit hours. First term. *W., at* 11; laboratory, *Th.,* 1 *to* 3, *or F.,* 1 *to* 3. Associate Professor BABB.

2. TEXTILES. Two credit hours. Second term. *W., at* 11; laboratory work, *Th.,* 1 *to* 3, *or F.,* 1 *to* 3. Associate Professor BABB.

3. A continuation of Course 2. Two credit hours. Third term. *W., at* 11; laboratory, *Th.,* 1 *to* 3, *or F.,* 1 *to* 3. Associate Professor BABB.

4. HISTORY OF COSTUME. DESIGN AND DRESSMAKING. Four credit hours. Second term. Prerequisite, Courses 1, 2, and 3. *Tu., Th., at* 8; laboratory work, *M., Tu.,* 1 *to* 3. Associate Professor BABB.

5. HOUSEHOLD ART AND DECORATION. A continuation of Course 4. Four credit hours. Third term. Prerequisite, Courses 1, 2, and 3. *Tu., Th., at* 8; laboratory, *M., Tu.,* 1 *to* 3. Associate Professor BABB.

6. THEORY AND PRACTISE OF TEACHING DOMESTIC ART. Three credit hours. First term. Time to be arranged. Associate Professor BABB.

7. EMBROIDERY. One credit hour. Three terms. Prerequisite Domestic Art 1, 2, and 3. Time to be arranged. Associate Professor BABB.

NOTE.—*In all courses except Course I, students provide their own material.*

DRAWING

(See Engineering Drawing and Art)

ECONOMICS AND SOCIOLOGY

(Office, Room 211, University Hall)

PROFESSOR HAGERTY, PROFESSOR BOWNOCKER, ASSOCIATE PROFESSOR HAMMOND, ASSISTANT PROFESSOR MC KENZIE, ASSISTANT PROFESSOR DUNCAN, MR. GEPHART, MR. WALLIS

ECONOMICS

Students who plan to do considerable work in Economics should take courses 30, 31, and 32, as introductory to all other courses, and should take at the same time Geology 17. Those who intend to take but one year of work in Economics and Sociology should take Economics 33.

30. INDUSTRIAL AND SOCIAL HISTORY OF ENGLAND. Three credit hours. First term. Sec. I, *M., W., F., at* 8; Sec. II, *M., W., F., at* 9. Open only to first and second-year students. Assistant Professor MCKENZIE, and Mr. GEPHART.

31. INDUSTRIAL AND SOCIAL HISTORY OF THE UNITED STATES. Three credit hours. Second term. Sec. I, *M., W., F., at* 8; Sec. II, *M., W., F., at* 9; Sec. III, *M., W., F., at* 2. Open only to first and second year students. Assistant Professor MCKENZIE and Mr. GEPHART.

32. COMMERCIAL AND ECONOMIC GEOGRAPHY. Three credit hours. Third term. Sec. I, *M., W., F., at* 8; Sec. II. *M., W., F., at* 9; Sec. III, *M., W., F., at* 2. Open only to first and second year students Assistant Professors MCKENIZE, and Mr. GEPHART.

33. PRINCIPLES OF ECONOMICS. Three credit hours. Three terms. Sec. I, *M., W., F., at* 8; Sec. II, *M., W., F., at* 9; Sec. III, *M., W., F., at* 9; Sec. IV, *M., W., F., at* 1. Not open to first year students. Should precede all courses in Economics and Sociology except Economics 30, 31, and 32, and Sociology 1. Associate Professor HAMMOND, Assistant Professor DUNCAN, and Mr. GEPHART.

34. MONEY AND BANKING. Three credit hours. First term. Prerequisite, course 33. *M., W., F., at* 2. Assistant Professor DUNCAN.

35. BANKING PRACTICE. Three credit hours. Second term. Prerequisite, course 34. *M., W., F., at* 2. Assistant Professor DUNCAN.

36. THE MONEY MARKET. Three credit hours. Third term. Prerequisite, course 35. *M., W., F., at* 2. Assistant Professor DUNCAN.

*37. INDUSTRIAL ORGANIZATION. Three credit hours. First term. Prerequisite, course 33. *M.*, *W.*, *F.*, *at* 9. Associate Professor HAMMOND.

*38. CORPORATION FINANCE AND ORGANIZATION. Three credit hours. Second term. Prerequisite, course 34, or 37. *M. W.*, *F.*, *at* 9. Associate Professor HAMMOND.

*51. THE MONOPOLY PROBLEM. Three credit hours. Third term. Prerequisite, course 38. *M.*, *W.*, *F.*, *at* 9. Associate Professor HAMMOND.

*40. MERCANTILE INSTITUTIONS. Three credit hours. First and second terms. Prerequisite, course 33. *M.*, *W.*, *F.*, *at* 11. Professor HAGERTY.

*41. COMMERCIAL CREDIT. Three credit hours. Third term. Prerequisite, course 40. *M. W.*, *F.*, *at* 11. Professor HAGERTY.

42. PUBLIC FINANCE. Two credit hours. First and second terms. Prerequisite, course 33. *Tu.*, *Th.*, *at* 2.

43. FINANCIAL HISTORY OF THE UNITED STATES. Two credit hours. Third term. Prerequisite, course 33. *Tu.*, *Th.*, *at* 2.

44. TRANSPORTATION. Three credit hours. Three terms. Prerequisite, course 33. *M.*, *W.*, *F.*, *at* 9. Associate Professor HAMMOND.

45. SEMINARY IN ECONOMICS. Two credit hours. Three terms. *Tu.*, 3 *to* 5. Associate Professor HAMMOND.

48. ACCOUNTING AND STATISTICS. Two credit hours. Three terms. Prerequisite, course 33. *Tu.*, *Th.*, *at* 8. Assistant Professor DUNCAN.

52. LABOR LEGISLATION. Three credit hours. First term. Prerequisite, course 33. *M.*, *W.*, *F.*, *at* 1. Associate Professor HAMMOND.

39. LABOR ORGANIZATIONS AND EMPLOYERS' ASSOCIATIONS. Three credit hours. Second term. Prerequisite, course 33. *M.*, *W.*, *F.*, *at* 1. Associate Professor HAMMOND.

53. REMUNERATION OF LABOR. Three credit hours. Third term. Prerequisite, course 33. *M.*, *W.*, *F.*, *at* 1. Associate Professor HAMMOND.

*54. INSURANCE. Two credit hours. Three terms. Prerequisite, course 33. *Tu.*, *Th.*, *at* 10. Mr. GEPHART.

*55. MUNICIPAL ECONOMICS. Two credit hours. First and second terms. Prerequisite, course 33. *M.*, *F.*, *at* 10. Mr. GEPHART.

*56. MUNICIPAL FINANCE. Two credit hours. Third term. Prerequisite, course 55. *M.*, *F.*, *at* 10. Mr. GEPHART.

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* Not given in 1908–1909.

*57. AMERICAN INDUSTRIES. Three credit hours. Second and third terms. Prerequisite, course 33. *M.*, *W.*, *F.*, *at* 2. Assistant Professor DUNCAN.

58. ADVANCED ACCOUNTING AND AUDITING. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 8. Assistant Professor DUNCAN.

59. ECONOMIC RESOURCES OF THE UNITED STATES. Two credit hours. Three terms. Given in 1908–1909, and thereafter in alternate years. Prerequisite, Geology 17 and Economics 33. *Tu.*, *Th.*, *at* 9. Professor BOWNOCKER.

SOCIOLOGY

These courses are not open to first-year students. It is recommended that course 1 be preceded by Economics 30, 31, 32, or 33, and Psychology 1, or Zoology 31.

1. PRINCIPLES OF SOCIOLOGY. Three credit hours. Three terms. Sec. I, *M.*, *W.*, *F.*, *at* 8; Sec. II, *M.*, *W.*, *F.*, *at* 9. Professor HAGERTY and Assistant Professor MCKENZIE.

2. HISTORY OF THE FAMILY. Three credit hours. Second term. Prerequisite, course 1. *M.*, *W.*, *F.*, *at* 8. Mr. WALLIS.

4. DEPENDENTS AND DEFECTIVES. Three credit hours. First term. Prerequisite, course 1. *Tu.*, *Th.*, *F.*, *at* 10. Professor HAGERTY.

5. CRIMINOLOGY. Three credit hours. Second term. Prerequisite, course 4. *Tu.*, *Th.*, *F.*, *at* 10. Professor HAGERTY.

6. ORGANIZED PHILANTHROPY. Three credit hours. Third term. Prerequisite, course 5. *Tu.*, *Th.*, *F.*, *at* 10. Professor HAGERTY,

8. THE INDIAN. A study of primitive man. Three credit hours. First term. *M.*, *W.*, *F.*, *at* 1. Assistant Professor MCKENZIE.

9. THE NEGRO. A study of tropic man. Three credit hours. Second term. *M.*, *W.*, *F.*, *at* 1. Assistant Professor MCKENZIE.

10. THE IMMIGRANT. Three credit hours. Third term. *M.*, *W.*, *F.*, *at* 1. Assistant Professor MCKENZIE.

7. SEMINARY IN SOCIOLOGY. Two credit hours. Three terms. *Tu.*, 3 *to* 5. Open to graduates and advanced undergraduates. Prerequisite, course 1. Professor HAGERTY.

*11. SOCIAL REFORM AND SOCIALISM. Three credit hours. Three terms. Prerequisite, courses 1, 2, and 3, or Economics 33. *M.*, *W.*, *F.*, *at* 9. Assistant Professor MCKENZIE.

12. BIBLICAL SOCIOLOGY. Three credit hours. First term. *M.*, *W.*, *F.*, *at* 8. Mr. WALLIS.

* Not given in 1908–1909.

13. ARYAN INSTITUTIONS. Three credit hours. Third term. *M.*, *W.*, *F.*, *at* 8. Mr. WALLIS.

14. ADVANCED SOCIOLOGY. Two credit hours. Three terms. *M.*, *W.*, *at* 2. Assistant Professor MCKENZIE.

GRADUATE COURSES IN ECONOMICS AND SOCIOLOGY

46. RESEARCH WORK. Two credit hours. Three terms. Hours to be arranged.

47. ADVANCED ECONOMICS AND SOCIOLOGY. One to ten credit hours. Three terms. Hours to be arranged with the students individually.

50. DISTRIBUTION OF WEALTH. Three credit hours. Three terms. This course is intended for graduates, but advanced undergraduates may be admitted by permission of the instructor. *M.*, *W.*, *F.*, *at* 11. Professor HAGERTY.

EDUCATION

(See History and Philosophy of Education, School Administration, and Psychology)

ELECTRICAL ENGINEERING

(Office, Room 152, Engineering Laboratory)

PROFESSOR CALDWELL, ASSOCIATE PROFESSOR ANDEREGG, ASSISTANT PROFESSOR HUNT

6. ELECTRICAL ENGINEERING. Two credit hours. Mechanical, Mine Engineering, Industrial Arts, and Manual Training, fourth year, first and second terms; Civil and Chemical Engineering, fourth year, first term. *M.*, *Th.*, *or Tu.*, *F.*, *at* 10. Prerequisite, Physics 2. Associate Professor ANDEREGG.

7. ELECTRICAL ENGINEERING. Two credit hours. Fourth year. First Term—*M.*, 1 *to* 5., Chemical Engineering; *W.*, *or F.*, 1 *to* 5, Civil Engineering; *M.*, 1 *to* 5, Industrial Arts; *M.*, 1 *to* 5, Manual Training; *W.*, 1 *to* 5, *or S.*, 8 *to* 12, Mechanical Engineering. Second Term—*M.*, 1 *to* 5, Mine Engineering; *M.*, 1 *to* 5, Industrial Arts; *M.*, 1 *to* 5, Manual Training; *F.*, 1 *to* 5, *or S.*, 8 *to* 12, Mechanical Engineering. Associate Professor ANDEREGG, Assistant Professor HUNT.

8. DIRECT CURRENT DYNAMO MACHINERY. Four credit hours. Electrical Engineering, third year, second term. *M.*, *Tu.*, *Th.*, *F.*, *at* 9. Prerequisite, Physics 4. Mechanics 1. Concurrent, Physics 6. Associate Professor ANDEREGG.

9. ELEMENTARY DYNAMO LABORATORY. Four credit hours, Electrical Engineering, third year, third term. *W.*, *Th.*, 1 *to* 5; *or* *F.*, 1 *to* 5; *S.*, 8 *to* 12. Prerequisite, Electrical Engineering 8. Associate Professor ANDEREGG, Assistant Professor HUNT.

11. ADVANCED DYNAMO LABORATORY. Three credit hours. Electrical Engineering, fourth year, first and second terms, *Tu.*, *or* *Th.*, 10 *to* 5; third term, *M.*, *or* *Tu.*, 10 *to* 5. Prerequisite Electrical Engineering 15. Concurrent, 16 and 17. Professor CALDWELL, Assistant Professor HUNT.

15. ALTERNATING CURRENT CIRCUITS AND MACHINERY. Two credit hours. Electrical Engineering, third year, third term. *M.*, *Th.*, *at* 10. Concurrent, Electrical Engineering 9. Professor CALDWELL.

16. Continuation of 15. Three credit hours. Electrical Engineering, fourth year, first term. *M.*, *W.*, *F.*, *at* 11. Concurrent, Electrical Engineering 11. Professor CALDWELL.

17. Continuation of 16. Two credit hours. Electrical Engineering, fourth year, second term. *M.*, *W.*, *at* 8. Concurrent, Electrical Engineering 11. Professor CALDWELL.

18. ELECTRICAL DESIGN. Three credit hours. Electrical Engineering, fourth year, second term. *F.*, 1 *to* 4; *S.*, 8 *to* 11. Prerequisite, Drawing 5. Concurrent, Industrial Arts 9. Assistant Professor HUNT.

19. Continuation of 18. Four credit hours. Electrical Engineering, fourth year, third term. *Th.*, *F.*, 1 *to* 5. Assistant Professor HUNT.

20. INSPECTION TRIP TO THE EAST. Given only in the even years. Electrical Engineering, third or fourth year.

21. INSPECTION TRIP TO THE WEST. Given only in the odd years. Electrical Engineering, fourth or third year.

22. READING COURSE. Electrical Engineering, third or fourth year; this may be taken as a substitute for 20, on presentation of reasons satisfactory to the head of the department.

23. Similar to 22. A substitute for 21.

24. APPLICATIONS OF ELECTRICITY. Two credit hours. Electrical Engineering, fourth year, second term. *Tu.*, *Th.*, *at* 8. Prerequisite, Electrical Engineering. 8 Professor CALDWELL, Associate Professor ANDEREGG.

25. ELECTRICAL TRANSMISSION AND DISTRIBUTION. Two credit hours. Electrical Engineering, fourth year, third term. *Tu.*, *Th.*, *at* 8. Prerequisite, Electrical Engineering 8. Professor CALDWELL.

26. ELECTRICAL RAILWAYS. Three credit hours. Electrical Engineering, fourth year, third term. *M.*, *W.*, *F.*, *at* 8. Alternative

with courses 27 and 28. Prerequisites, Electrical Engineering 17 and 24. Professor CALDWELL.

27. TELEPHONY. Three credit hours. Electrical Engineering, fourth year, third term. *M.*, *W.*, *F.*, *at* 9. Alternative with courses 25 and 28. Prerequisite, Electrical Engineering 17 and 24. Associate Professor ANDREGG.

28. ELECTRIC ILLUMINATION. Three credit hours. Electrical Engineering, fourth year, third term. *Tu.*, *Th.*, *at* 9; *F.*, *at* 10. Alternative with 26 and 27. Prerequisite, Electrical Engineering 17 and 24. Professor CALDWELL.

ENGINEERING DRAWING

(Office, Room 42, Brown Hall)

PROFESSOR FRENCH, ASSISTANT PROFESSOR LEWIS, MR. TIDBALL, MR. ROGERS, MR. MEIKLEJOHN, MR. BOTT, MR. NORRIS

2. LETTERING. Practise and occasional lectures. Three credit hours. Short Clay-working and Industrial Arts, first year; Short Mining, second year, first term, *Th.*, *F.*, 1 *to* 4. Concurrent, Drawing 24 or 27. Mr. MEIKLEJOHN.

5. TECHNICAL DRAWING. Three credit hours. Electrical and Mechanical Engineering, Industrial Arts and Manunl Training, third year, first term, *M.*, *Tu.*, 1 *to* 4, *or Th.*, *F.*, 1 *to* 4. Prerequisite, Drawing 35. Professor FRENCH, Mr. ROGERS.

10. MECHANICAL DRAWING. Three credit hours. First term. *M.*, *Tu.*, 1 *to* 4; *Th.*, *F.*, 1 *to* 4; *Tu.*, *Th.*, 9 *to* 12. Professor FRENCH, Mr. MEIKLEJOHN.

14. PEN DRAWING. Two credit hours. Architecture, second year, second and third terms, *M.*, *Tu.*, 1 *to* 3. Prerequisite, Drawing 26. Mr. NORRIS.

15. HOUSE PLANNING. One and one-half credit hours. Second and third terms. *Th.*, 1 *to* 4. Prerequisite, Course 20. Professor FRENCH.

18. WATER COLOR PAINTING. Two credit hours. Architecture, third year, second term, *Tu.*, *Th.*, 9 *to* 11. Prerequisite, Drawing 26. Mr. NORRIS.

19. WATER COLOR PAINTING. Two credit hours. Architecture, third year, third term, *Tu.*, *Th.*, 8 *to* 10. Prerequisite, Drawing 18. Mr. NORRIS.

20. MECHANICAL DRAWING. One credit hour. First term. *Th.*, 1 *to* 4. Professor FRENCH.

21. TECHNICAL DRAWING. Two credit hours. Chemical Engineering, third year, first term, *W.*, 1 *to* 3; *S.*, 8 *to* 10. Mr. ROGERS.

22. TECHNICAL DRAWING. Two credit hours. Chemical Engineering, third year; Ceramics, fourth year, second term, *S.*, 8 *to* 12. Prerequisite, Drawing 21 or 39. Professor FRENCH.

23. TECHNICAL DRAWING. Two credit hours. Chemical Engineering, third year; Ceramics, fourth year, third term, *S.*, 8 *to* 12. Prerequisite, Drawing 22. Professor FRENCH.

24. FREE HAND DRAWING. One credit hour. Short Industrial Arts, first year, first term, *W.*, 1 *to* 3. Mr. TIDBALL.

25. FREE HAND DRAWING. One credit hour. Short Industrial Arts, first year, second term, *W.*, 1 *to* 3. All four-year courses, first year, second term. Prerequisite, Drawing 24 or 27. Assistant Professor LEWIS, Mr. TIDBALL, Mr. NORRIS.

26. FREE HAND DRAWING. One credit hour. Short Industrial Arts, first year, third term, *W.*, 1 *to* 3. All four-year courses, first year, third term. Prerequisite, Drawing 25. Assistant Professor LEWIS, Mr. TIDBALL, Mr. NORRIS.

27. FREE HAND DRAWING. Two credit hours. Short Mining, second year, first term, *W.*, 1 *to* 3. All four-year courses, first year, first term. Assistant Professor LEWIS, Mr. TIDBALL, Mr. NORRIS.

31. GEOMETRIC DRAWING. One credit hour. All four-year courses, first year, second term. Professor FRENCH, Mr. ROGERS, Mr. MEIKLEJOHN, Mr. BOTT.

32. LETTERING. Two credit hours. All four-year courses, first year, third term. Prerequisite, Drawing 31. Professor FRENCH, Mr. ROGERS, Mr. MEIKLEJOHN, Mr. BOTT.

33. PROJECTION DRAWING. Three credit hours. Second year, first term.

Lecture	Practise	Course in
M., *at* 10	*Tu.*, *Th.*, 9 *to* 11	Architecture.
W., *at* 11	*M.*, *F.*, 10 *to* 12	Ceramic Engineering
W., *at* 11	*M.*, *F.*, 10 *to* 12	Chemical Engineering.
M., *at* 10	*Tu.*, *Th.*, 9 *to* 11	Civil Engineering.
Tu., *at* 11	*M.*, *F.*, 10 *to* 12	Electrical Engineering.
W., *at* 11	*M.*, *F.*, 10 *to* 12	Industrial Arts.
M., *at* 10	*M.*, *F.*, 10 *to* 12	Manual Training.
W., *at* 11	*M.*, *F.*, 10 *to* 12	Mechanical Engineering.
W., *at* 11	*Tu.*, *Th.*, 9 *to* 11	Mine Engineering.

Prerequisite, Drawing 2 or 32. Professor FRENCH, Mr. ROGERS, Mr. MEIKLEJOHN, Mr. BOTT.

34. DESCRIPTIVE GEOMETRY. Three credit hours. Second year, second term.

Lecture	Practise	Course in
M., *W.*, *at* 11	*F.*, 10 *to* 12	Ceramic Engineering
M., *W.*, *at* 11	*F.*, 10 *to* 12	Chemical Engineering.
Tu., *Th.*, *at* 11	*F.*, 10 *to* 12	Electrical Engineering.
M., *W.*, *at* 11	*F.*, 10 *to* 12	Industrial Arts.
M., *W.*, *at* 8	*F.*, 10 *to* 12	Manual Training.
M., *W.*, *at* 11	*F.*, 10 *to* 12	Mechanical Engineering.
M., *W.*, *at* 11	*Tu.*, 9 *to* 11	Mine Engineering.
M., *W.*, *at* 11	*Th.*, 9 *to* 11	Short Industrial Arts.

Prerequisite, Drawing 33 or 38. Professor FRENCH, Mr. ROGERS, Mr. MEIKLEJOHN, Mr. BOTT.

35. SHADES, SHADOWS, AND PERSPECTIVE. Three credit hours. Second year, third term.

Lecture	Practise	Course in
M., *at* 10	*Tu.*, *Th.*, 9 *to* 11	Civil Engineering.
Tu., *at* 11	*M.*, *F.*, 10 *to* 12	Electrical Engineering.
W., *at* 11	*M.*, *F.*, 10 *to* 12	Industrial Arts.
M., *at* 8	*M.*, *F.*, 10 *to* 12	Manual Training.
W., *at* 11	*M.*, *F.*, 10 *to* 12	Mechanical Engineering.
Tu., *at* 11	*Tu.*, *Th.*, 9 *to* 11	Mine Engineering.
M., *at* 10	*Tu.*, *Th.*, 9 *to* 11	Short Industrial Arts.

Prerequisite, Drawing 34 or 36. Professor FRENCH, Mr. ROGERS, Mr. MEIKLEJOHN, Mr. BOTT.

36. DESCRIPTIVE GEOMETRY. Five credit hours. Architecture and Civil Engineering, second year, second term, *M.*, *W.*, *F.*, *at* 8; *Tu.*, *Th.*, 9 *to* 11, *or M.*, *W.*, *F.*, *at* 11; *Tu.*, *Th.*, 9 *to* 11. Prerequisite, Drawing 33 or 38. Professor FRENCH, Mr. ROGERS, Mr. MEIKLEJOHN, Mr. BOTT.

38. PROJECTION DRAWING. Three credit hours. Short Clay-working and Industrial Arts, first year; Short Mining, second year, second term, *Th.*, 1 *to* 4; *F.*, 1 *to* 3. Prerequisite, Drawing 2 or 32. Mr. MEIKLEJOHN.

39. DRAFTING AND BLUE-PRINTING. Three credit hours. Short Clay-working and Industrial Arts, first year; Short Mining and Ceramics, second year, third term, *Th.*, *F.*, 1 *to* 4. Prerequisite, Drawing 33 or 38. Mr. ROGERS, Mr. MEIKLEJOHN.

40. CLAY MODELING. Two credit hours. Architecture, third year, second term, *Th.*, *F.*, 1 *to* 3; Domestic Science, third year, third term, *M.*, *Tu.*, 3 *to* 5. Prerequisite Drawing, 26 or equivalent. Assistant Professor LEWIS.

41. CLAY MODELING. Two credit hours. Architecture, third year, third term, *Th.*, *F.*, 1 *to* 3. Domestic Science, third year, third term, *M.*, *Tu.*, 3 *to* 5. Prerequisite, Drawing 40. Assistant Professor LEWIS.

42. CHARCOAL DRAWING FROM ARCHITECTURAL ORNAMENT. Two credit hours. Architecture, second year, first term, *M.*, *Tu.*, 1 *to* 3. Prerequisite, Drawing 26. Mr. TIDBALL.

43. CHARCOAL DRAWING FROM THE ANTIQUE. Two credit hours. Architecture, fourth year, first term, *M.*, *F.*, 10 *to* 12. Prerequisite, Drawing 19. Mr. TIDBALL.

45. TECHNICAL DELINEATION (Pencil). Two credit hours. First term. Prerequisite, Drawing 26. *Tu.*, *Th.*, 10 *to* 12.

46. TECHNICAL DELINEATION. (Pen and ink). Two credit hours. Second term. Prerequisite, Drawing 29. *Tu.*, *Th.*, 10 *to* 12.

47. TECHNICAL DELINEATION. (Brush). Two credit hours. Third term. Prerequisite, Drawing 45. *Tu.*, *Th.*, 10 *to* 12.

48. LETTERING IN DESIGN. Two credit hours. First term.

ENGLISH

(Office, Room 116, University Hall)

PROFESSOR DENNEY, PROFESSOR BARROWS†, ASSOCIATE PROFESSOR TAYLOR, ASSISTANT PROFESSOR GRAVES, ASSISTANT PROFESSOR MC KNIGHT, ASSISTANT PROFESSOR DUNCAN, MR. MC KINNEY, MR. BLANCHARD, MISS HUTSINPILLAR

UNDERGRADUATE COURSES

1. PARAGRAPH WRITING AND ANALYSIS OF PROSE. Two credit hours. Three terms. *Tu.*, *Th.*, *or W.*, *F.*, *at* 8; *Tu.*, *Th.*, *at* 9, 10, *or* 1. Professor DENNEY, Associate Professor TAYLOR, Assistant Professor GRAVES, Assistant Professor MCKNIGHT, Assistant Professor DUNCAN, Mr. MCKINNEY, Miss HUTSINPILLAR.

3. BRIEF MAKING AND ARGUMENTATION. Two credit hours. First, second, and third terms. *Tu.*, *Th.*, *at* 9, 10, 11; *M.*, *F.*, *at* 10; *W.*, *F.*, *at* 1. Prerequisite, course 1. Professor DENNEY, Assistant Professor DUNCAN, Mr. MCKINNEY, Mr. BLANCHARD.

3a. DEBATING. Two credit hours. First, second, and third terms. *Tu.*, *Th.*, *at* 1. Prerequisite, course 1. Mr. BLANCHARD.

† Died January 19, 1908.

5. ADVANCED COMPOSITION. Two credit hours. First, second, and third terms. *Tu., Th., at* 11. Prerequisite, course 1. Assistant Professor GRAVES.

7. INTRODUCTION TO ENGLISH LITERATURE. Three credit hours. Three terms. *M., W., F., at* 8 *or* 9. No prerequisite course. Either 7 or 8 may be chosen, but not both. Professor BARROWS.

8. GENERAL SURVEY OF ENGLISH LITERATURE. Three credit hours. Three terms. *M., W., F.,* 11 *or* 3. No prerequisite course. Either 7 or 8 may be chosen, but not both. Assistant Professor GRAVES, Assistant Professor DUNCAN.

10. FROM SPENCER TO MILTON. Two credit hours. First term. *Tu., Th., at* 11. Prerequisite, course 7 or 8. Miss HUTSINPILLAR.

11. FROM DRYDEN TO POPE. Two credit hours. Second term. *Tu., Th., at* 11. Prerequisite, course 7 or 8. Miss HUTSINPILLAR.

12. THE AGE OF JOHNSON. Two credit hours. Third term. *Tu., Th., at* 11. Prerequisite, course 7 or 8. Miss HUTSINPILLAR.

13. BURNS. Two credit hours. First term. *Tu., Th., at* 2. Prerequisite, course 7 or 8. Assistant Professor DUNCAN.

17. BYRON. Two credit hours. Second term. *Tu., Th., at* 2, Prerequisite, course 7 or 8. Assistant Professor DUNCAN.

21. SHELLEY AND KEATS. Two credit hours. Third term. *Tu., Th., at* 2. Prerequisite, course 7 or 8. Assistant Professor DUNCAN.

14. BURKE TO DEQUINCEY. Four credit hours. First term. *M., Tu., Th., F., at* 10. Prerequisite, course 7 or 8. Professor DENNEY.

15. CARLYLE AND RUSKIN. Four credit hours. Second term. *M., Tu., Th., F., at* 10. Prerequisite, course 7 or 8. Professor DENNEY.

16. ARNOLD, NEWMAN, AND PATER. Four credit hours. Third term. *M., Tu., Th., F., at* 10. Prerequisite, course 7 or 8. Professor DENNEY.

18. WORDSWORTH AND COLERIDGE. Three credit hours. First term. *M., W., F., at* 9. Prerequisite, course 7 or 8. Associate Professor TAYLOR.

19. TENNYSON. Three credit hours. Second term. *M., W., F., at* 9. Prerequisite, course 7 or 8. Associate Professor TAYLOR.

20. BROWNING. Three credit hours. Third term. *M., W., F., at* 9. Prerequisite, course 7 or 8. Associate Professor TAYLOR.

*22. THE ENGLISH BIBLE. The Pentateuch and Earlier Histories. One credit hour. Three terms. *Th., at* 8. No prerequisite course. Professor BARROWS.

* Not given in 1908–1909.

23. THE ENGLISH BIBLE. Later Histories, Poetry, and Prophecies. One credit hour. Three terms.

(24. THE ENGLISH BIBLE. The New Testament. One credit hour. Three terms. Not offered until 1909–1910.)

26. HISTORY OF THE ENGLISH LANGUAGE. Two credit hours. First term. *M.*, *F.*, *at* 10. No prerequisite course. Assistant Professor MCKNIGHT.

27. ENGLISH WORDS. Two credit hours. Second and third terms. *M.*, *F.*, *at* 10. No prerequisite course. Assistant Professor MCKNIGHT.

28. OLD AND MIDDLE ENGLISH. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 9. No prerequisite course. Assistant Professor MCKNIGHT.

30. LITERATURE BEFORE CHAUCER. Three credit hours. First term. *M.*, *W.*, *F.*, *at* 11. Open only to juniors, seniors, and graduates. Assistant Professor MCKNIGHT.

31. CHAUCER. Three credit hours. Third term. *M.*, *W.*, *F.*, *at* 11. Open only to juniors, seniors, and graduates. Assistant Professor MCKNIGHT.

32. ARTHURIAN STORY. Three credit hours. Second term. *M.*, *W.*, *F.*, *at* 11. Open only to juniors, seniors, and graduates. Assistant Professor MCKNIGHT.

35. SHAKESPEARE. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 11. Prerequisite, course 7 or 8. Professor BARROWS.

36. THE DRAMA OTHER THAN SHAKESPEARE. Three credit hours. First and second terms. *M.*, *W.*, *F.*, *at* 2. Prerequisite, course 7 or 8. Professor BARROWS.

37. MILTON, Epic and Prose. Three credit hours. Third term. *M.*, *W.*, *F.*, *at* 2. Prerequisite, course 7 or 8. Professor BARROWS.

38. THE NOVEL. Eighteenth Century. Four credit hours. First term. *M.*, *Tu.*, *Th.*, *F.*, *at* 10. Prerequisite, course 7 or 8. Associate Professor TAYLOR.

39. THE NOVEL. First Half of Nineteenth Century. Four credit hours. Second term. *M.*, *Tu.*, *Th.*, *F.*, *at* 10. Prerequisite, course 7 or 8. Associate Professor TAYLOR.

40. THE NOVEL. Last Half of Nineteenth Century. Four credit hours. Third term. *M.*, *Tu.*, *Th.*, *F.*, *at* 10. Prerequisite, course 7 or 8. Associate Professor TAYLOR.

43. POETICS. Three credit hours. First term. *M.*, *W.*, *F.*, *at* 9. Prerequisite, course 3 or 5, and 7 or 8. Assistant Professor GRAVES.

44. SHORT STORY WRITING. Three credit hours. Second and third terms. *M., W., F., at* 9. Prerequisite, course 3 or 5, and 7 or 8. Assistant Professor GRAVES.

45. AMERICAN LITERATURE. Two credit hours. Three terms. *Tu., Th., at* 8. No prerequisite course. Associate Professor TAYLOR.

48. THE TEACHING OF ENGLISH. Two credit hours. Three terms. *W.*, 3 *to* 5. Open only to seniors and graduates. Professor DENNEY.

49. SEMINARY. Two credit hours. Three terms. *M., at* 4. Open only to seniors and graduates. Must be elected for the year. Professor DENNEY.

GRADUATE COURSES

61. THEORIES OF RHETORIC. *M., at* 2. Professor DENNEY.

62. OLD AND MIDDLE ENGLISH PHILOLOGY. *F., at* 4. Assistant Professor MCKNIGHT.

63. LITERARY PROBLEMS. *Tu., at* 4. Professor BARROWS.

64. COMPARATIVE CRITICISM. Topic for 1908–09. Current Literature. *Th., at* 3. Associate Professor TAYLOR.

ENTOMOLOGY

(See Zoology and Entomology)

EUROPEAN HISTORY

(Office, Room 204, University Hall)

PROFESSOR SIEBERT, ASSISTANT PROFESSOR MC NEAL

1. THE EARLY MIDDLE AGES. Three credit hours. First term. Sec. I, *M., W., F., at* 9. Professor SIEBERT. Sec. II, *M., W., F., at* 1. Assistant Professor MCNEAL. Sec. III, *M, .W., F., at* 2. Assistant Professor MCNEAL. Sec. IV., *M., W., F., at* 11. Professor SIEBERT.

2. RENAISSANCE. Three credit hours. Second term. Sec. I, *M., W., F., at* 9. Professor SIEBERT. Sec. II, *M., W., F., at* 1. Assistant Professor MCNEAL. Sec. III, *M., W., F., at* 2. Assistant Professor MCNEAL. Sec. IV, *M., W., F., at* 11. Professor SIEBERT.

3. MODERN EUROPE. Three credit hours. Third term. Sec. I, *M., W., F., at* 9. Professor SIEBERT. Sec. II, *M., W., F., at* 1. Assistant Professor MCNEAL. Sec. III, *M., W., F., at* 2. Assistant Professor MCNEAL. Sec. IV, *M., W., F., at* 11. Professor SIEBERT.

4. POLITICAL AND CONSTITUTIONAL HISTORY OF ENGLAND. Three credit hours. Three terms. *Tu., Th., F., at* 10. Prerequisite, course 14, or courses 1, 2, 3. Professor SIEBERT.

5. HISTORY OF GREECE TO THE ROMAN CONQUEST. Two credit hours. First term. *Tu.*, *Th.*, *at* 9. Assistant Professor MCNEAL.

6. HISTORY OF ROME. Two credit hours. Second and third terms. *Tu.*, *Th.*, *at* 9. Assistant Professor MCNEAL.

7. PERIOD OF THE PROTESTANT REFORMATION. Three credit hours. First term. *M.*, *W.*, *F.*, *at* 2. Prerequisite, courses 1, 2, and 3, or course 14. Professor SIEBERT.

8. THE FRENCH REVOLUTION AND NAPOLEONIC PERIODS, 1789–1815. Three credit hours. Second term. *M.*, *W.*, *F.*, *at* 2. Prerequisite, courses 1, 2, and 3, or course 14. Professor SIEBERT.

9. HISTORY OF EUROPE IN THE NINETEENTH CENTURY. Three credit hours. Third term. *M.*, *W.*, *F.*, *at* 2. Prerequisite, courses 1, 2, and 3, or course 14. Professor SIEBERT.

*11. THE EASTERN QUESTION. Two credit hours. First term. *Tu.*, *Th.*, *at* 11. Prerequisite, courses 1, 2, and 3, or equivalent. Professor SIEBERT.

*10. HISTORY OF EUROPEAN COLONIES. Two credit hours. Second and third terms. *Tu.*, *Th.*, *at* 11. Prerequisites, courses 1, 2, and 3, or course 14. Professor SIEBERT.

13. TEACHERS' COURSE IN EUROPEAN HISTORY. One or two credit hours. Three terms. Time to be arranged. Professor SIEBERT and Assistant Professor MCNEAL.

14. HISTORY OF ENGLAND. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 8. Introductory course. Assistant Professor MCNEAL.

15. HISTORY OF NORTHEASTERN EUROPE. Two credit hours. First and second terms. *Tu.*, *Th.*, *at* 11. Prerequisite, courses 1, 2, and 3, or course 14.

16. EUROPE AND THE ASIATIC QUESTION. Two credit hours. Third term. *Tu.*, *Th.*, *at* 11. Prerequisite, courses 1, 2, and 3, or course 14.

21. ADVANCED WORK IN MODERN EUROPEAN HISTORY. Investigations of Special Topics. One to ten credit hours. Three terms. Open only by permission of instructor. Time to be arranged. Professor SIEBERT.

22. ADVANCED WORK IN MEDIÆVAL EUROPEAN HISTORY. One to ten credit hours. Three terms. Topics may be selected from the following list: (a) Mediæval Civilization. (b) Feudal Institutions. (c) Period of the Renaissance. (d) Study of Mediæval Documents. Open only by permission of instructor. Time to be arranged. Assistant Professor MCNEAL.

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*Not given in 1908–1909.

FRENCH

(See Romance Languages and Literatures)

GEOLOGY

(Office, Room 1, Orton Hall)

PROFESSOR PROSSER, PROFESSOR BOWNOCKER, ASSISTANT PROFESSOR HUBBARD.

1. PHYSIOGRAPHY. Five credit hours. Thursday afternoon will be devoted to laboratory or field work. Short Mining, first year; Short Industrial Arts, second year, third term, *M.*, *Tu.*, *W.*, *Th.*, *at* 11. Assistant Professor HUBBARD.

2. GENERAL GEOLOGY. Five credit hours. Agriculture and Horticulture, third year, first term; Architecture, Ceramics, Civil, and Mine Engineering, fourth year, first term. Lectures and recitations, *M.*, *Tu.*, *W.*, *F.*, *at* 11; laboratory, *Th.*; field work first half of term, *F.* afternoon or *S.* forenoon, when the *F.* lecture will be omitted. Professor PROSSER, Assistant Professor HUBBARD.

4. ELEMENTARY GEOLOGY. Five credit hours. Short Mining, second year, second term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Assistant Professor HUBBARD.

5. APPLIED GEOLOGY. Four credit hours. Second term. Lectures, *M.*, *Tu.*, *W.*, *Th.*, *at* 8; laboratory, *F.*, *at* 8. Professor BOWNOCKER.

6. ECONOMIC GEOLOGY. Three credit hours. Second term. *M.*, *W.*, *F.*, *at* 11. Prerequisite, courses 11 and 12. Professor BOWNOCKER.

7. PETROGRAPHY. Two credit hours. Ceramics and Mine Engineering, fourth year, second term, *Tu.*, 10 to 12; *F.*, *at* 10. Concurrent, Geology 6. Professor BOWNOCKER.

11. INORGANIC GEOLOGY. Three credit hours. First term. *M.*, *W.*, *F.*, *at* 9. Prerequisite, Chemistry 1. Professor BOWNOCKER.

12. HISTORICAL GEOLOGY. Three credit hours. Second term. Lectures, *M.*, *W.*, *F.*, *at* 9. Prerequisite, course 11. Professor PROSSER.

13. FIELD GEOLOGY. Three credit hours. Third term. Lectures, *M.*, *at* 9. Field trips, *S.* Laboratory open *W.*, *at* 9. Prerequisite, courses 11 and 12. Professor PROSSER.

14. PALEONTOLOGY. Two to five credit hours. Three terms. Laboratory open *M.*, *Tu.*, *W.*, *Th.*, *F.*, 1 *to* 4. Prerequisite, courses 11 and 12. Professor PROSSER.

15. AREAL GEOLOGY. Two to five credit hours. First and third terms. Field work, *S.* Laboratory open, *M.*, *Tu.*, *W.*, *Th.*, *F.*,

1 *to* 4. Prerequisite, courses 11, 12, 13, and 14. Professor PROSSER and Assistant Professor HUBBARD.

16. ADVANCED HISTORICAL GEOLOGY. Three to five credit hours. Three terms. Time to be arranged. Laboratory open *M.*, *Tu.*, *W.*, *Th.*, *F.*, 1 *to* 4. Prerequisite, courses 11, 12, 13, and 14. Professor PROSSER.

17. PHYSIOGRAPHY. Three credit hours. Three terms. Open to Freshmen and Sophomores only. First term. Sec. I, *M*, *W.*, *F.*, *at* 1. Field trips, Saturday morning. Professor BOWNOCKER. Sec. II, *M.*, *Tu.*, *Th.*, *at* 10. Field trips, Saturday morning. Assistant Professor HUBBARD. Second term. Sec. I, *W.*, *F.*, *at* 1. Professor BOWNOCKER, Sec. II, *Tu.*, *Th.*, *at* 10. Assistant Professor HUBBARD. Laboratory (both sections), *M.*, *Tu.*, *W.*, *or Th.*, 1 *to* 4. One hour fixed; two hours to be arranged. Assistant Professor HUBBARD. Third term, Sec. I, *M.*, *W.*, *F.*, *at* 1. Field trips, Saturday morning. Professor BOWNOCKER. Sec. II, *M.*, *Tu.*, *Th.*, *at* 10. Field trips, Saturday morning. Assistant Professor HUBBARD.

18. GEOGRAPHIC GEOLOGY. Three credit hours. Time to be arranged. Prerequisite, courses 11 or 17. Professor BOWNOCKER.

19. PETROGRAPHY. Two credit hours. Three terms. Laboratory open *M.*, *Tu.*, *W.*, *Th.*, *F.*, 1 *to* 4. Prerequisite, Chemistry 1. Metallurgy 2, and Geology 11. Professor BOWNOCKER.

20. RESEARCH WORK. Three to five credit hours. Three terms. Prerequisite, preceding courses in inorganic or historical geology. Professor PROSSER, Professor BOWNOCKER, or Assistant Professor HUBBARD.

21. ADVANCED PHYSIOGRAPHY. Three or more credit hours. Three terms. *M.*, *at* 4, and other hours to be arranged. Prerequisite, course 17, or courses 11, 12, and 13, or their equivalents. Assistant Professor HUBBARD.

22. THE TEACHING OF PHYSIOGRAPHY. Two credit hours. Three terms. Time to be arranged. Assistant Professor HUBBARD.

GERMANIC LANGUAGES AND LITERATURES

(Office, Room 317, University Hall)

PROFESSOR RHOADES, ASSOCIATE PROFESSOR VILES, ASSISTANT PROFESSOR EISENLOHR, DR. MAY THOMAS, DR. BUSSE

1. ELEMENTARY GERMAN. Four credit hours. Three terms. Sec. I, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Sec. II, *M.*, *Tu.*, *Th.*, *F.*, *at* 10. Sec. III, *M.*, *Tu.*, *Th.*, *F.*, *at* 10. Sec. IV, *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Sec. V, *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Sec. VI, *Tu.*, *W.*, *Th.*, *F.*, *at* 2. Sec. VII, *Tu.*, *W.*, *Th.*, *F.*, *at* 3.

2. SCIENCE READING. Four credit hours. Third term. Sec. I, *Tu., W., Th., F., at* 9. Sec. II, *Tu., W., Th., F., at* 2. Prerequisite, course 4 for the first and second terms. Assistant Professor EISENLOHR.

4. INTERMEDIATE GERMAN. Four credit hours. Three terms. Sec. I, *M., Tu., Th., F., at* 10. Sec. II, *M., Tu., Th., F., at* 11. Sec. III, *Tu., W., Th., F., at* 2. Sec. IV, *Tu., W., Th., F., at* 8. Sec. V, *Tu., W., Th., F., at* 9. Sections IV and V will be replaced in the third term by course 2.

9. CLASSICAL DRAMA. Three credit hours. Three terms. *M., W., F., at* 2. Prerequisite, course 4 or equivalent. Not open to freshmen.

10. MODERN PROSE AND DRAMA. Three credit hours. Three terms. *M., Th., F., at* 10. Prerequisite, course 4, or equivalent. Open to freshmen offering four entrance units in German. Dr. THOMAS.

10a. PROSE COMPOSITION. One credit hour. Three terms. Freshmen will elect this in connection with course 10, 18, or 19. *Tu., at* 10.

11. FAUST. Three credit hours. First and second terms. *M., W., F., at* 3. Prerequisite, course 9 or 10. Must be elected for both terms. Professor RHOADES.

12. PROSE COMPOSITION AND CONVERSATION. Two credit hours. Three terms. *Tu., Th., at* 2 *or* 3. Prerequisite, course 4. Open only by permission and in connection with one of the advanced reading courses. Assistant Professor EISENLOHR.

13. ADVANCED PROSE COMPOSITION. One credit hour. Three terms. *M., at* 2. Prerequisite, course 12. Associate Professor VILES.

14. GOTHIC. Three credit hours. First term. Time to be arranged. Associate Professor VILES.

15. OLD HIGH GERMAN. Two credit hours. Second and third terms. Time to be arranged. This, with course 17, forms a natural sequence to 14. Associate Professor VILES.

16. MIDDLE HIGH GERMAN. Two credit hours. Three terms. Time to be arranged. Associate Professor VILES.

17. OLD SAXON AND OLD NORSE. One credit hour. Second and third terms. Time to be arranged. Prerequisite, course 14; concurrent, course 15. Associate Professor VILES.

18. ROMANTIC WRITERS AND HEINE. Three credit hours. Three terms. *M., W., F., at* 3. Prerequisite, course 4 or equivalent. Open to freshmen offering four entrance units in German.

*19. RECENT AND CONTEMPORARY WRITERS. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 2. Professor RHOADES. Prerequisite, course 4, or equivalent.

26. SEMINARY. Studies in Modern Literature. Two credit hours. Three terms. *Tu.*, *at* 4. The work is continuous throughout the year and must be so elected in order to count for an advanced degree. Professor RHOADES.

28. GERMAN LYRIC POETRY. Two credit hours. Three terms. *W.*, *F.*, *at* 2. Prerequisite, course 4. Assistant Professor EISENLOHR.

30. HISTORY OF GERMAN LITERATURE SINCE THE REFORMATION. Three credit hours. Third term. *M.*, *W.*, *F.*, *at* 3. Professor RHOADES.

31. THE TEACHING OF GERMAN. Two credit hours. First term. Prerequisite, 20 credit hours in advance of course 1, including course 12. Time to be arranged.

32. THE TEACHING OF GERMAN. Two credit hours. Second term. Prerequisite, course 31. Time to be arranged.

33. THE TEACHING OF GERMAN. Two credit hours. Third term. Prerequisite, course 32. Time to be arranged.

GREEK LANGUAGE AND LITERATURE

(Office, Room 307, University Hall)

PROFESSOR SMITH, ASSOCIATE PROFESSOR HODGMAN, ASSOCIATE PROFESSOR ELDEN

1. ELEMENTARY GREEK. Four credit hours. Three terms. *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Associate Professor ELDEN.

7. XENOPHON: The Memorabilia of Socrates; Exercises in Greek Prose. Four credit hours. First term. *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Prerequisite, course 1. Professor SMITH.

8. HERODOTUS: Selections; with Studies in Greek History. Four credit hours. Second term. *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Prerequisite, course 7. Professor SMITH.

9. HOMER'S ODYSSEY. Selections from Books I–IX. Four credit hours. Third term. *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Prerequisite, courses 7 and 8. Professor SMITH.

10. LYSIAS: Eight Orations; with Studies in Attic Procedure. Three credit hours. First term. *Tu.*, *Th.*, *F.*, *at* 10. Prerequisite, courses 7 to 9. Professor SMITH.

* Not given in 1908–1909.

11. PLATO: Apology, Crito and Phædo. Three credit hours. Second term. *Tu., Th., F., at* 10. Prerequisite, courses 7 to 10. Professor SMITH.

12. HOMER'S ILIAD. Three credit hours. Third term. *Tu., Th., F., at* 10. Prerequisite, courses 7 to 11. Professor SMITH.

13. THUCYDIDES: Book I or Book VII. Two credit hours. First term. *M., F., at* 3. Prerequisite, courses 7 to 12. Associate Professor HODGMAN.

14. DEMOSTHENES: Olynthiacs and Philippics. Two credit hours. Second term. *M., F., at* 3. Prerequisite, courses 7 to 12. Associate Professor HODGMAN.

15. GREEK LYRIC POETS, OR THEOCRITUS. Two credit hours. Third term. *M., F., at* 3. Prerequisite, courses 7 to 12. Associate Professor HODGMAN.

16. EURIPIDES: Alcestis, with lectures on the Attic Drama. Two credit hours. First term. Time to be arranged. Prerequisite, courses 7 to 12. Associate Professor HODGMAN.

17. SOPHOCLES: Oedipus Tyrannus. Two credit hours. Second term. Time to be arranged. Prerequisite, courses 7 to 12. Associate Professor HODGMAN.

18. AESCHYLUS: Agamemmon. Two credit hours. Third term. Time to be arranged. Prerequisite, courses 7 to 12. Associate Professor HODGMAN.

19. EPIC POETRY. Two credit hours. First term. *W., F., at* 2. Prerequisite, courses 7 to 12. Professor SMITH.

20. ARISTOPHANES: The Birds. Two credit hours. Second term. *W., F., at* 2. Prerequisite, courses 7 to 12. Professor SMITH.

21. POST-CLASSICAL GREEK. Two credit hours. Third term. *W., F., at* 2. Prerequisite, courses 7 to 12. Professor SMITH.

22. ANCIENT ART. Lectures on Architecture. Two credit hours. First term. No prerequisite course. Professor SMITH.

23. ANCIENT ART. Lectures on Sculpture. Two credit hours. Second term. No prerequisite course. Professor SMITH.

24. ANCIENT ART. Lectures on Sculpture. Two credit hours. Third term. No prerequisite course. Professor SMITH.

Courses 22, 23, and 24, are biennial, alternating with courses 32, 33, and 34. They will not be offered again until 1909–10.

25. GREEK PHILOSOPHY. Two credit hours. First term. *Tu., Th., at* 2. Prerequisite, courses 7 to 12. Professor SMITH.

26. PLATO. Gorgias or Protagoras. Two credit hours. Second term. *Tu., Th., at* 2. Prerequisite, courses 7 to 12. Professor SMITH.

27. STUDIES IN NEW TESTAMENT GREEK. Two credit hours. Third term. *Tu., Th., at* 2. Prerequisite, courses 7 to 12. Professor SMITH.

28. HISTORICAL GRAMMAR. One credit hour. Three terms. Prerequisite, courses 7 to 12. Associate Professor HODGMAN.

29. RELATIONS OF GREECE AND PERSIA: The Panegyricus of Isocrates. Two credit hours. First term. Prerequisite, courses 7 to 21. Professor SMITH.

30. THE MACEDONIAN SUPREMACY. Arrian's Expedition of Alexander the Great. Two credit hours. Second term. Prerequisite, courses 7 to 12. Professor SMITH.

31. LATER GREEK EPICS: The Argonautica of Apollonius Rhodius. Two credit hours. Third term. Prerequisite, courses 7 to 12. Professor SMITH.

32. MEDIÆVAL ART. Lectures on Architecture. Two credit hours. First term. No prerequisite course. Professor SMITH.

33. MEDIÆVAL ART. Lectures on Sculpture. Two credit hours. Second term. No prerequisite course. Professor SMITH.

34. MEDIÆVAL ART. Lectures on Painting. Two credit hours. Third term. No prerequisite course. Professor SMITH.

These courses, 32, 33, and 34, are biennial, alternating with courses 22, 23, and 24. They will not be offered again until 1910–11.

35. PRIVATE LIFE OF THE GREEKS. Lectures. Two credit hours. First term. No prerequisite course. Professor SMITH.

36. HISTORY OF GREEK LITERATURE. (Epic and Lyric Poetry). Two credit hours. First term. Professor SMITH.

37. HISTORY OF GREEK LITERATURE. (The Attic Drama). Two credit hours. Second term. Professor SMITH.

38. HISTORY OF GREEK LITERATURE. (Historians, Philosophers, and Orators.) Two credit hours. Third term. Professor SMITH.

Courses 36, 37, and 38, are open to students without a knowledge of Greek.

HISTORY AND PHILOSOPHY OF EDUCATION

(Office, Room 102, University Hall)

PROFESSOR GRAVES

1. HISTORY OF EDUCATION. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 9. Texts: Graves's Introduction to the History of Education, Monroe's Text-book in the History of Education.

2. PHILOSOPHY OF EDUCATION. Two credit hours. Three terms. *M.*, *Th.*, *at* 3. Prerequisite, course 1 and Psychology 1. Text: Horne's Philosophy of Education.

3. EDUCATIONAL CLASSICS. Three credit hours. Three terms. *M.*, *Th.*, *F.*, *at* 11. Prerequisite, course 1.

4. HISTORY OF EUROPEAN SCHOOL SYSTEMS. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 9. Prerequisite, courses 2 and 3.

5. HISTORY OF EDUCATION IN THE UNITED STATES. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 10. Prerequisite, courses 2 and 3. Text-books: Dexter's History of Education in the United States, Brown's Making of our Middle Schools.

6. SEMINARY IN THE HISTORY OF EDUCATION. One credit hour. Three terms. *Tu. at* 11. Prerequisite, courses 4 and 5.

7. SEMINARY IN EDUCATIONAL PHILOSOPHY. One credit hour. Three terms. *W. at* 11. Prerequisite, courses 2 and 3, Sociology 1, and Philosophy, 103 and 152.

HORTICULTURE AND FORESTRY

(Horticultural Hall)

PROFESSOR LAZENBY, ASSISTANT PROFESSOR DAVIS

1. ELEMENTS IN HORTICULTURE. Four credit hours. Three terms. Two-year courses in Agriculture and Horticulture. Lectures and recitations, *M.*, *W.*, *F.*, *at* 11; laboratory or practicum, *W.*, 1 *to* 3. Assistant Professor DAVIS.

2. VEGETABLE FORCING. Four credit hours. Second term. Lectures and recitations. Time to be arranged. Laboratory or practicum. Assistant Professor DAVIS.

3. PLANT PROPAGATION. Four credit hours. Third term. Lectures and recitations, *M.*, *W.*, *F.*, *at* 9; laboratory or practicum, *M.*, *or F.*, 1 *to* 3. Assistant Professor DAVIS.

5. VARIETIES OF CULTIVATED FRUIT. Four credit hours. First term. Lectures and recitations, *M.*, *W.*, *F.*, *at* 9; laboratory and practicum, *F.*, 1 *to* 3. Professor LAZENBY.

6. PRINCIPLES OF FRUIT CULTURE. Four credit hours. Second term. Lectures and recitations, *M.*, *W.*, *F.*, *at* 9; laboratory and practicum, *M.*, *or F.*, 1 *to* 3. Assistant Professor DAVIS.

8. ORNAMENTAL PLANTS. Two credit hours. First term. Time to be arranged. Professor LAZENBY.

9. WINDOW GARDENING AND FLORICULTURE. Two credit hours. Second term. *Tu.*, *Th.*, 8 *or* 9. Professor LAZENBY.

10. HOME GARDENING. Two credit hours. Third term. *Tu.*, *Th.*, 8 *or* 9. Professor LAZENBY.

15. LANDSCAPE GARDENING. Three credit hours. Third term. *M.*, *W.*, *F.*, *at* 8; practicum, *F.*, 1 *to* 3. Professor LAZENBY.

11. ELEMENTS OF FORESTRY. Five credit hours. First term. Lectures and recitations, *M.*, *W.*, *F.*, *at* 9; laboratory or practicum, *Th.*, 1 *to* 3. Professor LAZENBY.

12. FOREST TECHNOLOGY AND TIMBER PHYSICS. Five credit hours. Second term. Lectures and recitations, *M.*, *W.*, *F.*, *at* 9; laboratory or practicum, *Th.*, 1 *to* 3. Professor LAZENBY.

13. FOREST ECONOMICS. Five credit hours. Third term. Lectures and recitations, *M.*, *W.*, *F.*, *at* 9; laboratory or practicum, *Th.*, 1 *to* 3. Professor LAZENBY.

14. OLERICULTURE. Four credit hours. Third term. Lectures and recitations. Time to be arranged. Assistant Professor DAVIS.

16. NATURE STUDY. Two credit hours. First term. Lectures, recitations, and practicum, *Th.*, *at* 11; *M.*, 1 *to* 3. Assistant Professor DAVIS.

17. PLANT VARIATIONS. Two credit hours. Second term, Lectures and recitations *Tu.*, *Th.*, *at* 9. Professor LAZENBY.

18. APICULTURE. Three credit hours. Second term. *Tu.*, *Th.*, *at* 10; practicum, *Th.*, 1 *to* 3. Professor LAZENBY.

19. POMOLOGY. Four credit hours. Three terms. Two-year courses in Horticulture and Agriculture. Assistant Professor DAVIS.

INDUSTRIAL ARTS

(Office, Room 2, Hayes Hall)

PROFESSOR SANBORN, ASSISTANT PROFESSOR KNIGHT, MR. CROWE, MR. CASE, MR. BEEM, AND MR. DENMAN

INDUSTRIAL ARTS

1. TOOLS AND MACHINES. Three credit hours. Industrial Arts and Manual Training, third year; Short Industrial Arts, second year, first, second, and third terms, *M.*, *W.*, *F.*, *at* 8. Prerequisite, Mathematics 14 or 32. Concurrent, Physics 1. Professor SANBORN.

2. DESIGNING. Three credit hours. Industrial Arts and Manual Training, third year; Short Industrial Arts, second year, second and third terms, *F.*, 1 *to* 4; *S.*, 8 *to* 11. Professor SANBORN.

3. SHOP EQUIPMENT, APPLIANCES, AND MANAGEMENT. Three credit hours. Industrial Arts, fourth year, first, second, and third terms, *M.*, *W.*, *F.*, *at* 11. Prerequisite, Industrial Arts 1. Concurrent, Industrial Arts 4. Professor SANBORN.

4. ADVANCED DESIGNING. Three credit hours. Industrial Arts, fourth year, first and second terms, *M.*, *Tu.*, 1 *to* 4; third term, *W.*, *Th.*, 1 *to* 4. Prerequisite, Drawing 5. Concurrent, Industrial Arts 3. Professor SANBORN.

5. WORKSHOP APPLIANCES. Three credit hours. Mechanical Engineering, fourth year, third term, *M.*, *W.*, *F.*, *at* 8. Prerequisite, Civil Engineering 19. Professor SANBORN.

8. MACHINE DRAWING. Three credit hours. Short Industrial Arts, second year, first term, *Th.*, *F.*, 1 *to* 4. Prerequisite, Drawing 39. Professor SANBORN.

9. MACHINE DESIGN. Two credit hours. Electrical Engineering, fourth year, second term, *M.*, *W.*, 1 *to* 3. Prerequisite, Mechanics 2 and Drawing 5. Professor SANBORN.

SHOPWORK

NOTE.—For time requirements, credit given, and all similar information concerning shopwork courses, see table, page 247.

1. CARPENTRY AND PATTERN MAKING. Mr. BEEM.

2. FORGING. Mr. CROWE.

3. FOUNDRY WORK. Mr. BEEM.

4. CHIPPING AND FILING. Assistant Professor KNIGHT, Mr. CASE.

7. CARPENTRY AND PATTERN MAKING. Mr. BEEM, Mr. DENMAN.

8. CABINET WORK. Prerequisite, Shop 7. Mr. BEEM, Mr. DENMAN.

9. ADVANCED PATTERN MAKING. Continuation of pattern work of Shopwork 7. Mr. BEEM, Mr. DENMAN.

11. FORGING. Mr. CROWE.

12. ADVANCED FORGING. Prerequisite, Shop 11. Mr. CROWE.

13. MACHINE WORK. Assistant Professor KNIGHT, Mr. CASE.

14. MACHINE WORK. Prerequisite, Shop 13. Assistant Professor KNIGHT, Mr. CASE.

15. ADVANCED MACHINE WORK. Prerequisite, Shop 14. Assistant Professor KNIGHT.

16. ADVANCED MACHINE WORK. Prerequisite, Shop 15. Assistant Professor KNIGHT.

17. ADVANCED MACHINE WORK. Prerequisites, Industrial Arts 3 and Shop 16. Assistant Professor KNIGHT.

SUMMER TERM. The Summer Term in Shopwork will begin on Monday morning preceding Commencement Day and continue for four weeks. The courses open to students are Shopwork 4, 7, 11, 13, 14, and 15, three credit hours in each. Each course requires three hours a day for six days a week.

Students electing the Ceramic, Electrical, or Mechanical Engineering course are required to take two of the three courses, Shopwork 4, 7, and 11, at the close of their first year.

Students electing the Chemical Engineering course are required to take Shopwork courses 7 and 11 at the close of their first or second year.

Students electing the Industrial Arts course or the Short Course in Clay-working are required to take Shopwork 7 and 11 at the close of their first year.

The courses are open as elective to students who desire to lighten their work of the regular terms, to make up back work, or to take extra work.

SHOPWORK REQUIRED

Number	Credit hours	Subject	Year	Term	Hours	Courses in
3	2	Founding	2	1	M. 3. Tu. 1-4; W. 3, Th. 1-4; or S. 8-12	Ind. Arts; Mech. Eng.
3	2	Founding	2	1	M. 1-4; Tu. 1-4	Short Ind. Arts.
3	3	Founding	2	1	M. 3, Tu. 1–4	Manual Train.
3	2	Founding	..	2	Th. 3, F. 1–4	
4	3	Chipping and Filing	2	1	W. 1–4; S. 9–12	Short Ind. Arts.
4	3	Chipping and Filing	..	..	(See Courses)	El. Eng.; Mech. Eng.
4	3	Chipping and Filing	2	3	M. Tu. 1–4	Ind. Arts.
4	3	Chipping and Filing	3	1	M. Tu. 9–12	Manual Train.
7	2	Woodworking	2	1	M. F. 10–12	Mine Eng.
7	3	Woodworking	1	1	M. Tu. 1–4	Short Ind. Arts.
7	3	Woodworking	2	1	Th. F. 1–4	Manual Train.
7	3	Woodworking	..	..	(See Courses)	Chem., El. & Mech. Eng. & Ind. Arts.
8	3	Cabinet Work	2	3	M. Tu. 1–4	Manual Train.
9	3	Adv. Pattern Work	2	1	Tu. Th. 9–12; or Th. F. 1–4	Mech. Eng.
9	3	Adv. Pattern Work	1	2	M. Tu. 1–4	Short Ind. Arts.
9	3	Adv. Pattern Work	2	2	M. Tu. 1–4	Ind. Arts; Man. Tr.
9	3	Adv. Pattern Work	..	..	(See Courses)	Mech. Eng.
11	3	Forging	..	..	(See Courses)	Chem., El. & Mech. E. & Ind. Arts.
11	2	Forging	2	2	Th. F. 10–12	Mine Eng.
11	3	Forging	2	2	Th. F. 1–4	Manual Train.
11	3	Forging	1	3	M. Tu. 1–4	Short Ind. Arts.
11	3	Forging	2	3	M. Tu. 1–4	Short Mining.
12	3	Adv. Forging	2	3	Th. F. 1–4	Manual Train.
13	3	Machine Work	2	2	M. Tu. 1–4; or W. Th. 1–4; or F. 1–4, S.8–11	Elec. Eng.
13	3	Machine Work	3	2	M. Tu. 9–12	Manual Train.
13	3	Machine Work	3	..	M. Tu. 1–4	Ind. Arts.
13	3	Machine Work	2	2	W. Th. 1–4	Short Ind. Arts.
13	3	Machine Work	2	3	M. Tu. 1–4; or F. 1–4, S. 8–11	Mech. Eng.
14	3	Adv. Machine Work	3	1	M. Tu. W. 8–10; or Th. F. S. 8–10	Elec. Eng.
14	3	Adv. Machine Work	3	1	M. Tu. Th. 10–12; or M. Tu. 1–4	Mech. Eng.
14	3	Adv. Machine Work	2	3	W. Th. 1–4	Short Ind. Arts.
14	3	Adv. Machine Work	3	3	M. F. 9–12	Manual Train.
14	3	Adv. Machine Work	3	2	M. Tu. 1–4	Ind. Arts.
15	3	Adv. Machine Work	4	1	F. 1–4; S. 8–11	Manual Train.
15	4	Adv. Machine Work	3	2	M. Tu. Th. F. 10–12; or F. 1–5, S. 8–12	Mech. Eng.
15	3	Adv. Machine Work	3	3		Ind. Arts.
16	3	Adv. Machine Work	4	1		Ind. Arts.
16	3	Adv. Machine Work	4	2	M. W. F. 8–10	Ind. Arts; Man. Tr.
17	3	Adv. Machine Work	4	3	M. Tu. 1–4	Ind. Arts.

ITALIAN

(See Romance Languages and Literatures)

LATIN LANGUAGE AND LITERATURE

(Office, Room 307, University Hall)

PROFESSOR DERBY, ASSOCIATE PROFESSOR HODGMAN, ASSOCIATE PROFESSOR ELDEN

N. B.—Except in case of unavoidable conflict, members of Latin 1, 2, 3, whose names begin with any letter from A to F inclusive, will be placed in Section I; those whose names begin with any letter from G to N inclusive, in Section II; all others in Section III.

1. CICERO. De Senectute and De Amicitia, or Selected Letters. Four credit hours. First term. Prerequisite, four units of preparatory Latin. Sec. I, *M., Tu., Th., F., at* 10. Associate Professor ELDEN. Sec. II, *M., Tu., Th., F., at* 11. Associate Professor HODGMAN. Sec. III, *Tu., W., Th., F., at* 2. Professor DERBY.

2. LIVY: Books 1, 2, 21, or 22, or the JUGURTHA OF SALLUST. Four credit hours. Second term. Prerequisite, course 1. Sec. I, *M., T., Th., F., at* 10. Associate Professor ELDEN. Sec. II, *M., Tu., Th., F., at* 11. Associate Professor HODGMAN. Sec. III, *Tu., W., Th., F., at* 2. Professor DERBY.

3. HORACE: Odes. Four credit hours. Third term. Prerequisite, courses 1 and 2. Sec. I, *M., Tu., Th., F., at* 10. Associate Professor ELDEN. Sec. II, *M., Tu., Th., F., at* 11. Associate Professor HODGMAN. Sec. III, *Tu., W., Th., F., at* 2. Professor DERBY.

4. PLINY OR CICERO: Selected Letters. Three credit hours. First term. Sec. I, *M., W., F., at* 3. Professor DERBY. Sec. II, *M., W., F., at* 9. Associate Professor HODGMAN.

5. TACITUS: Germania and Agricola, or Histories; or Catullus. Three credit hours. Second term. Sec. I, *M., W., F., at* 3. Professor DERBY. Sec. II, *M., W., F., at* 9. Associate Professor HODGMAN.

6. TERENCE: Phormio; Plautus, Trinummus or Captivi. Three credit hours. Third term. Sec. I, *M., W., F., at* 3. Professor DERBY. Sec. II, *M., W., F., at* 9. Associate Professor HODGMAN.

*7. MARTIAL: Selected Epigrams. Two credit hours. First term. *M., F., at* 3. Professor DERBY.

*8. SUETONIUS. Two credit hours. Second term. *M., F., at* 3. Professor DERBY.

*Not given in 1908–1909.

*9. TACITUS: Historiæ or Anales. Two credit hours. Third term. *M.*, *F.*, *at* 3. Professor DERBY.

10. THE ROMAN NOVEL: Petronius; Apuleius. Two credit hours. First term. *Tu.*, *Th.*, *at* 9. Prerequisite, courses 1 to 3, and 4 to 6. Associate Professor HODGMAN.

11. SENECA: Medea; Dialogues. Two credit hours. Second term. *Tu.*, *Th.*, *at* 9. Prerequisite, courses 1 to 3, and 4 to 6. Associate Professor HODGMAN.

12. CICERO: Tusculan Disputations. Two credit hours. Third term. *Tu.*, *Th.*, *at* 9. Prerequisite, courses 1 to 3, and 4 to 6. Associate Professor HODGMAN.

13. CICERO: De Natura Deorum. Two credit hours. First term. *W.*, *F.*, *at* 8. Prerequisite, courses 1 to 3, and 4 to 6. Associate Professor ELDEN.

14. EPIC POETRY. Two credit hours. Second term. *W.*, *F.*, *at* 8. Prerequisite, courses 1 to 3, and 4 to 6. Associate Professor ELDEN.

15. HORACE: Satires. Two credit hours. Third term. *W.*, *F.*, *at* 8. Prerequisite, courses 1 to 3, and 4 to 6. Associate Professor ELDEN.

16. HORACE: Epistles. Two credit hours. First term. *Tu.*, *Th.*, *at* 3. Professor DERBY.

17. TACITUS: Annals. Two credit hours. Second term. *Tu.*, *Th.*, *at* 3. Professor DERBY.

17a. LATE LATIN. Two credit hours. Third term. *Tu.*, *Th.*, *at* 3. Professor DERBY.

18. TEACHERS' COURSE. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 9. Prerequisite, courses 1 to 6. Associate Professor ELDEN.

19. LATIN PROSE COMPOSITION FOR TEACHERS. Three credit hours. Three terms. *M.*, *Tu.*, *F.*, *at* 10. Associate Professor HODGMAN.

Courses 18 and 19 are essential for those students who are preparing to teach Latin. Such students are strongly advised to take also at least one advanced reading course.

20. ROMAN PRIVATE LIFE. One credit hour. Three terms. *Tu.*, *at* 8. Prerequisite, courses 1 to 3, and 4 to 6. Professor DERBY.

*21. QUIZ AND REVIEW. One credit hour. Three terms. *M.*, *at* 2. Prerequisite, courses 1 to 3, and 4 to 6. Professor DERBY.

22. ROMAN LITERATURE IN ENGLISH. One credit hour. Three terms. Time to be arranged. Associate Professor ELDEN.

* Not given in 1908–1909.

COURSES PRIMARILY FOR GRADUATES

*30a. ROMAN PUBLIC LIFE. One credit hour. Three terms. *Th.*, *at* 8. Professor DERBY.

*30. LATIN LITERATURE. One credit hour. Three terms.

*31. LATIN PHILOLOGY. One credit hour. Three terms.

32. HISTORICAL LATIN GRAMMAR. Sounds and Inflections. One credit hour. Three terms. Associate Professor HODGMAN.

33. HISTORICAL LATIN GRAMMAR. Syntax. One credit hour. Three terms. *Th.*, *at* 3. Associate Professor ELDEN.

Courses 32 and 33 are deemed essential for those who make Latin a major or minor subject of study. Students with consent of instructor, may earn an additional credit hour in each.

*34. ADVANCED LATIN COMPOSITION.

*35. PRO-SEMINARY. Textual Criticism; interpretation and criticism of Latin authors.

36. ROMAN RELIGION. One credit hour. Three terms. Lectures, and Fasti of Ovid. Associate Professor HODGMAN.

*37. LEGAL LATIN.

*38. MEDIÆVAL LATIN.

39. THE ELEMENTS OF EPIGRAPHY. Two credit hours. Three terms. Professor DERBY.

40. PALÆOGRAPHY. One credit hour. Three terms.

42. ROMAN SATIRE. Two credit hours. Three terms. Open to graduates and advanced undergraduates. Associate Professor ELDEN.

LAW

(Office, Page Hall)

PROFESSORS OUTHWAITE,† PAGE, KINKEAD, KNIGHT, RANDALL, SHAUCK, STEWART, ELLIS, DILLON, BUTLER, RIGHTMIRE, AND TUTTLE

FIRST YEAR

ELEMENTARY LAW. Five hours a week, first semester. Blackstone; Robinson's Elementary Law; Walker's American Law. Professor TUTTLE.

CRIMINAL LAW AND PROCEDURE. Three hours a week, first semester. May's Criminal Law. Professor OUTHWAITE.

CONTRACTS. Three hours a week, throughout the year. Anson on Contracts (Huffcut's Edition, 1906), Huffcut and Woodruff's Cases on Contracts (Second Edition), and selected cases. Professor PAGE.

* Not given in 1908–1909.

† Deceased.

TORTS. Two hours a week, first semester; three hours a week, second semester. Bigelow on Torts (Eighth Edition); Erwin's Cases on Torts. Professor TUTTLE.

PERSONAL PROPERTY. Two hours a week, first semester. Schouler's Law of Personal Property (abridgment). Professor RIGHTMIRE.

AGENCY. Two hours a week, second semester. Mechem on Agency and selected cases. Professor PAGE.

DOMESTIC RELATIONS. Three hours a week, second semester. Tiffany, Persons and Domestic Relations. Professor RIGHTMIRE.

REAL PROPERTY I. Two hours a week, second semester. Tiffany on Real Property, Blackstone Book II, and selected cases. Professor OUTHWAITE.

SALES. Two hours a week, second semester. Burdick's Law of Sales of Personal Property. Professor RIGHTMIRE.

LOOKING UP THE LAW. Six Lectures, second semester. Professor OUTHWAITE.

SECOND YEAR

BAILMENTS. Two hours a week, first semester. Van Zile, Bailments and Carriers. Professor RIGHTMIRE.

NEGOTIABLE INSTRUMENTS. Four hours a week, first semester. Tiedeman's Commercial Paper and Randall's Annotations on the Negotiable Instruments Act. Professor RANDALL.

EVIDENCE. Three hours a week. throughout the year. Greenleaf, 16th Edition by Wigmore. Judge DILLON.

PLEADING. Three hours a week, throughout the year. Phillips on Pleading. Professor KINKEAD.

REAL PROPERTY II. Three hours a week, first semester. Tiffany on Real Property, and selected cases. Professor PAGE.

REAL PROPERTY III. One hour a week, second semester. Tiffany on Real Property, and selected cases. Professor PAGE.

PARTNERSHIP. Two hours a week, second semester. Mechem on Partnership. Professor RANDALL.

LEGAL ETHICS. One hour a week, second semester. Professor OUTHWAITE.

MOOT COURT. Two hours a week, second semester. Professor KINKEAD.

WILLS. Two hours a week, second semester. Page on Wills, and selected cases. Professor PAGE.

PROBATE PRACTICE. One hour a week, second semester. Kinkead's Probate Law and Practice. Professor KINKEAD.

INSURANCE. Two hours a week, second semester. Vance on Insurance and selected cases. Professor PAGE.

PATENT AND COPYRIGHT LAW. Eight Lectures, second semester. Professor RIGHTMIRE.

THIRD YEAR

CONSTITUTIONAL LAW. Three hours a week, first semester. Black's Constitutional Law and Boyd's Cases. Professor KNIGHT.

CORPORATIONS (Private). Three hours a week throughout the year. Taylor on Private Corporations. Professor ELLIS.

EQUITY JURISPRUDENCE. Four hours a week, first semester. Merwin, The Principles of Equity and Equity Pleadings. Judge SHAUCK.

QUASI CONTRACTS. Two hours a week, first semester. Woodruff's Anotated Cases on Quasi Contracts. Professor PAGE.

REAL PROPERTY IV. Two hours a week, first semester. Tiffany on Real Property, Part IV. Professor OUTHWAITE.

MOOT COURT. Two hours a week, first semester. Professor KINKEAD.

CORPORATIONS (Municipal). Three hours a week, second semester. Elliott on Public Corporations. Professor BUTLER.

FEDERAL PRACTICE. Two hours a week, second semester. Hughes' Federal Procedure. Professor STEWART.

SURETYSHIP. Two hours a week, second semester. Stearns, The Law of Suretyship. Professor OUTHWAITE.

TRIAL PRACTICE. Two hours a week, second semester. Kinkead's Code Pleading. Professor KINKEAD.

CIRCUIT AND SUPREME COURT PRACTICE. Fifteen Lectures, first half of second semester. Professor SHAUCK.

DAMAGES. Two hours a week, second semester. Mechem's Cases on Damages. Professor TUTTLE.

CONFLICTS OF LAWS. (Private International Law). Two hours a week, second semester. Minor, Conflict of Laws. Professor TUTTLE.

BANKRUPTCY. Ten Lectures, second half of second semester.

MANUAL TRAINING

(See Industrial Arts)

MATHEMATICS

(Office, Room 314, University Hall)

PROFESSOR BOHANNAN, ASSOCIATE PROFESSOR M'COARD, ASSOCIATE PROFESSOR SWARTZEL. ASSOCIATE PROFESSOR KUHN, ASSISTANT PROFESSOR ARNOLD, ASSISTANT PROFESSOR RASOR, ASSISTANT PROFESSOR PRESTON, MISS BAREIS, MR. CHAMBERS

1. ELEMENTARY ALGEBRA. Five credit hours. First term. Venable. *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Assistant Professor PRESTON.

2. ELEMENTARY ALGEBRA. Five credit hours. Text-book: Wentworth's Algebra. Short Clay-working, Industrial Arts, and Mining, first year, first, second, and third terms, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9.

3. PLANE GEOMETRY. Five credit hours. Text-book: Venable's Geometry. Short Clay-Working, Industrial Arts, and Mining, first year, first term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 11.

3a. PLANE GEOMETRY. Five credit hours. Second term. Venable. *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Assistant Professor PRESTON.

11. DIFFERENTIAL EQUATIONS. One credit hour. Text-book: Boyd's Differential Equations. Mechanical Engineering, third year, first term, *F.*, *at* 10. Prerequisite, Mathematics 43.

13. SOLID GEOMETRY. Five credit hours. Text-book: Venable's Geometry. Short Clay-working, Industrial Arts, and Mining, first year, second term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 11. Prerequisite, Mathematics 3.

14. PLANE TRIGONOMETRY. Five credit hours. Text-book: Bohannan's Trigonometry. Short Clay-working, Industrial Arts, and Mining, first year, third term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8.

21. COLLEGE ALGEBRA. Three credit hours. First term. *M.*, *W.*, *F.*, *at* 9, 11 *or* 1. Professor BOHANNAN, Associate Professor McCOARD, Associate Professor KUHN.

22. PLANE TRIGONOMETRY. Three credit hours. Second term. *M.*, *W.*, *F.*, *at* 9, 11 *or* 1. Professor BOHANNAN, Associate Professor McCOARD, Associate Professor KUHN.

23. ELEMENTARY ANALYTICAL GEOMETRY AND CALCULUS. Three credit hours. Third term. *M.*, *W.*, *F.*, *at* 9, 11 *or* 1. Prerequisite, course 22. Professor BOHANNAN, Associate Professor McCOARD, Associate Professor KUHN.

24. PROBLEMS ON ALL PAST WORK. One credit hour. Three terms. *F.*, *at* 10. Assistant Professor ARNOLD.

28. ANALYTICAL GEOMETRY AND CALCULUS. Three credit hours. Three terms. Prerequisite, courses 21, 22, 23, or 31, 32, 33. Assistant Professor RASOR.

31. COLLEGE ALGEBRA. Five credit hours. First term. *M., Tu., W., Th., F., at* 8, 9, 11, 1, or 2. Professor BOHANNAN, Associate Professors MCCOARD, SWARTZEL, KUHN, Assistant Professors ARNOLD, RASOR, PRESTON, Miss BAREIS, Mr. CHAMBERS.

32. PLANE TRIGONOMETRY. Five credit hours. Second term. *M., Tu., W., Th., F., at* 8, 9, 11, 1, or 2. Professor BOHANNAN, Associate Professors MCCOARD, SWARTZEL, KUHN, Assistant Professors ARNOLD, RASOR, PRESTON, Miss BAREIS, Mr. CHAMBERS.

33. ANALYTICAL GEOMETRY. Five credit hours. Third term. *M., Tu., W., Th., F., at* 8, 9, 11, 1, *or* 2. Prerequisite, course 22 or 32. Professor BONANNAN, Associate Professors MCCOARD, SWARTZEL, KUHN, Assistant Professors ARNOLD, RASOR, PRESTON, Miss BAREIS, Mr. CHAMBERS.

41, 42, 43. CALCULUS. Five credit hours. Three terms. *M., Tu., W., Th., F., at* 8, 11, or 1. Prerequisite, courses 21, 22, 23, or 31, 32, 33. Professor BOHANNAN, Associate Professors MCCOARD SWARTZEL, KUHN, Assistant Professors ARNOLD, RASOR, PRESTON, Miss BAREIS.

25. HIGHER MATHEMATICS. From one to ten hours a week may be selected from the following courses: (a) Determinants. (b) Modern Geometry. (c) Modern Higher Algebra. (d) Advanced Analytical Geometry. (e) Advanced Calculus. (f) Space Analytics. (g) Differential Equations. (h) Theory of Equations. (i) Higher Plane Curves. (j) Groups. (k) General Function Theory. (l) Elliptic Functions. (m) Potential Function. (n) Spherical Harmonies. (o) Mathematical Physics. (r) Higher Geodesy. (s) Infinite Series and Products. (t) The Teaching of Elementary Mathematics. Professor BOHANNAN, Associate Professors SWARTZEL and KUHN, Assistant Professors ARNOLD and RASOR, and Miss BAREIS.

74. DIFFERENTIAL EQUATIONS. Three credit hours. Second term. Elective. Prerequisite, Mathematics 43. Text-book: Boyd's Differential Equations.

MECHANICAL ENGINEERING

(Office, Room 201, Engineering Laboratory)

PROFESSOR MAGRUDER, PROFESSOR HITCHCOCK, ASSISTANT PROFESSOR JUDD, ASSISTANT PROFESSOR RIGDON, MR. FISHER

3. MECHANISM. Five credit hours. Mechanical Engineering, third year, second term, *M., Tu., W., Th., F., at* 8. Prerequisite, Drawing 33 and Physics 2. Two credit hours. Mechanical Engineering, third year, third term. Time to be arranged. Professor HITCHCOCK.

12. EXPERIMENTAL ENGINEERING LABORATORY. Two credit hours. Mechanical Engineering, third year, first term, *W.*, 1 *to* 5, *or* *S.*, 8 *to* 12. Industrial Arts, fourth year, first term, *Th.*, 1 *to* 5. Prerequisite, Drawing 33. Concurrent, Mechanics 1, or Industrial Arts 3. Assistant Professor RIGDON, Mr. MARTIN.

14. Continuation of 27. Four credit hours. Mechanical Engineering, fourth year, second term, *M.*, *W.*, 1 *to* 5. Concurrent, Mechanical Engineering 34. Professor HITCHCOCK, Assistant Professor RIGDON.

15. Continuation of 14. Three credit hours. Mechanical Engineering, fourth year, third term, *M.*, *Tu.*, 9 *to* 12. Professor HITCHCOCK, Assistant Professor RIGDON.

17. EXPERIMENTAL ENGINEERING. Three credit hours. Civil Engineering, fourth year, second term, *Th.*, *at* 11; *F.*, 1 *to* 5. Prerequisite, Drawing 33, and Mechanics 3. Professor HITCHCOCK, Assistant Professors JUDD and RIGDON.

18. MACHINE DESIGN. Five credit hours. Chemical and Mechanical Engineering, fourth year, first and second terms, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Prerequisite, Drawing 5 or 33; Mechanics 3; Metallurgy 4. Professor MAGRUDER.

19. MACHINE DESIGN. Five credit hours. Chemical and Mechanical Engineering, fourth year, third term, *M.*, 1 *to* 5; *Tu.*, *W.*, 1 *to* 4. Prerequisite, Mechanical Engineering 18. Professor MAGRUDER.

21. THESIS WORK. Five credit hours. Mechanical Engineering, fourth year, third term. Professors MAGRUDER and HITCHCOCK.

23. MATERIALS OF CONSTRUCTION. Four credit hours. Architecture, fourth year, first term, *Tu.*, *Th.*, *at* 8; *W.*, 1 *to* 5. Prerequisite, Mechanics 1. Professor HITCHCOCK.

24. EXPERIMENTAL ENGINEERING LABORATORY. Three credit hours. First and second terms. Elective to third and fourth year engineers. (Not given in 1908–1909).

25. Continuation of 17. Five credit hours. Civil Engineering, fourth year, third term, *Th.*, *at* 11; *M.*, *Tu.*, 1 *to* 5. Professor HITCHCOCK, Assistant Professors JUDD and RIGDON.

27. Continuation of 12. Five credit hours. Mechanical Engineering, fourth year, first term, *M.*, 1 *to* 5; *F.*, 10 *to* 5. Concurrent, Mechanical Engineering 33. Professor HITCHCOCK, Assistant Professors JUDD and RIGDON.

28. EXPERIMENTAL ENGINEERING LABORATORY. Two credit hours. Electrical Engineering, third year, third term, *Th.*, *or* *F.*, 1 *to* 5. Manual Training, fourth year, third term, *F.*, 1 *to* 5. Concur-

rent, Mechanical Engineering 32. Assistant Professors JUDD and RIGDON.

29. Continuation of 28. Three credit hours. Electrical Engineering, fourth year, first term, *Tu., or Th.*, 10 *to* 12, 1 *to* 5. Two credit hours. Industrial Arts, fourth year, second term, *W.*, 1 *to* 5. Assistant Professors JUDD and RIGDON.

30. Continuation of 29. Two credit hours. Electrical Engineering, fourth year, second term, *Tu., or Th.*, 1 *to* 5. Industrial Arts, fourth year, third term, *F.*, 1 to 5. Assistant Professors JUDD and RIGDON.

31. HYDRAULIC MACHINERY. Three credit hours. Mechanical Engineering, fourth year, third term, *Tu., Th., at* 8; *W., at* 9. Prerequisite, Mechanics 3 and Mechanical Engineering 33. Professor HITCHCOCK.

32. MECHANICAL ENGINEERING OF POWER PLANTS. Five credit hours. Chemical and Electrical Engineering and Industrial Arts, third year, third term, *M., Tu., W., Th., F., at* 8 *or* 9. Mechanical Engineering, third year, third term, *M., Tu., W., Th., F., at* 8, *or* 9. Manual Training, fourth year, third term, *M., Tu., W., Th., F., at* 8. Prerequisite, Mechanical Engineering 3, or Industrial Arts 1; Drawing 5 or 22, and Physics 2. Professor MAGRUDER.

33. STEAM ENGINES AND BOILERS. Five credit hours. Electrical and Mechanical Engineering, fourth year, first term, *M., Tu., W., Th., F., at* 8. Prerequisite, Mechanics 3 and Mechanical Engineering 32. Professor MAGRUDER.

34. THERMODYNAMICS. Five credit hours. Mechanical Engineering, fourth year, second term, *M., Tu., W., Th., F., at* 8. Prerequisite, Mechanical Engineering 33. Professor MAGRUDER.

35. EXPERIMENTAL ENGINEERING LABORATORY. Five credit hours. Option, Chemical Engineering, fourth year, second term, *F., at* 11; *Th., F.*, 1 *to* 5. Prerequisite, Mechanics 3 and Mechanical Engineering 32. Assistant Professors JUDD and RIGDON.

36. EXPERIMENTAL ENGINEERING LABORATORY. Five credit hours. Ceramics and Mine Engineering, fourth year, third term, *Tu., Th.*, 10 *to* 11; *W., Th.*, 1 *to* 4. Prerequisite, Mechanics 3 and Metallurgy 4. Professor HITCHCOCK, Assistant Professors JUDD and RIGDON.

37. MECHANISM. Four credit hours. Electrical Engineering, third year, second term, *M., Tu., Th., F., at* 10. Professor HITCHCOCK, Assistant Professor JUDD.

38. INSPECTION TRIP TO THE EAST. Given only in the even years. Mechanical Engineering, third or fourth year.

39. INSPECTION TRIP TO THE WEST. Given only in the odd years. Mechanical Engineering, fourth or third year.

40. WRITTEN REPORT. Course of assigned reading upon processes of manufacture and power plants may be reported upon by third and fourth-year students in Mechanical Engineering as a substitute for 38 on presentation of reasons satisfactory to the head of the department.

41. Similar to 40. A substitute for 39.

42. HEATING AND VENTILATING. Three credit hours. Architecture, fourth year, second term, *M.*, *W.*, *F.*, *at* 9. Professor HITCHCOCK.

43. MECHANISM AND DESIGN. Five credit hours. Ceramic Engineering, third year, third term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8. Assistant Professor JUDD.

MECHANICS

(Office, Room 219, Mines Building)

PROFESSOR J. E. BOYD, ASSISTANT PROFESSOR CODDINGTON

1. STATICS. Five credit hours. Architecture, Ceramics, and Chemical, Civil, Electrical, Mechanical, and Mine Engineering, third year, first term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, 8, 9, *or* 11. Prerequisite, Mathematics 43. Text-book: Hoskin's Theoretical Mechanics.

2. STRENGTH OF MATERIALS, KINETICS. Five credit hours. Architecture, Ceramics, and Chemical, Civil, Electrical, Mechanical, and Mine Engineering, third year, second term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, 8, 9, 11, *or* 2. Prerequisite, Mechanics 1. Text-book: Merriman's Mechanics of Materials, Cambria Steel.

3. KINETICS AND HYDRAULICS. Five credit hours. Chemical, Civil, Electrical, Mechanical, and Mine Engineering, third year, third term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, 8, 9, *or* 11. Prerequisite, Mechanics 2. Text-books: Hoskin's Theoretical Mechanics, Goodman's Mechanics of Engineering.

METALLURGY AND MINERALOGY

(Office, School of Mines Building)

PROFESSOR N. W. LORD, ASSOCIATE PROFESSOR SOMERMEIER, MR. MC QUIGG

2. MINERALOGY. Three credit hours. Chemical and Mine Engineering, second year, third term, *M.*, *W.*, *F.*, *at* 11. Prerequisite, Chemistry 12.. Lectures arranged so as to be preparatory to Determinative Mineralogy. Professor LORD.

3. DETERMINATIVE MINERALOGY. Five credit hours. Mine Engineering, third year, third term, *M.*, *Tu.*, 1 *to* 5. Prerequisite, Metallurgy 2. Professor LORD, Associate Professor SOMERMEIER.

4. METALLURGY. Five credit hours. Mine Engineering, third year, first and second terms. Option, Chemical Engineering, fourth year, first and second terms. Industrial Arts and Mechanical Engineering, third year, first term and first two-fifths of second term. Ceramics, fourth year, first term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 9. Prerequisite, Chemistry 12, and Physics 2. Professor LORD.

5. METALLURGICAL LABORATORY. Five credit hours. Mine Engineering, second year, first, second, and third terms. Chemical Engineering, third year, first term, *W.*, *Th.*, *F.*, 1 *to* 4. Prerequisite, Chemistry 12. Associate Professor SOMERMEIER.

6. ASSAYING. Five credit hours. Mine Engineering and Chemical Engineering, third year, second term, *M.*, *Tu.*, *at* 11; 1 *to* 5. Prerequisite, one term of Metallurgy 5. Professor LORD, Associate Professor SOMERMEIER.

7. METALLURGICAL CONSTRUCTION. Three credit hours. Mine Engineering, fourth year, second term, *M.*, *Tu.*, *Th.*, *at* 10. Prerequisite, Drawing 5, Mechanics 3, Metallurgy 4 and 8. Professor LORD, Professor RAY.

8. ORE DRESSING AND COAL WASHING. Two credit hours. Mine Engineering, fourth year, first term, *Tu.*, *F.*, *at* 10. Prerequisite, Metallurgy 4. Professor LORD.

9. MINERAL CHEMISTRY. Five credit hours. Short Mining, second year, third term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8. Prerequisite, Chemistry 3. Professor LORD.

MILITARY SCIENCE AND TACTICS

(The Armory)

CAPTAIN G. L. CONVERSE, U. S. A., RET.

The Military Department is open five days during each week of each term. Required of all students first and second year, unless excused by the Military and Gymnasium Board.

1. MILITARY DRILL. One credit hour. First and third terms. *M.*, *Tu.*, *W.*, *at* 11 *or* 4.

2. MILITARY DRILL. One credit hour. Second term. Drill Regulations, *M.*, *Tu.*, *W.*, *at* 11 *or* 4; Gallery Practise, *M.*, *Tu.*, *W.*, *Th.*, 1 *to* 5.

MINE ENGINEERING

(Office, School of Mines Building)

PROFESSOR RAY, MR. MINOR

1. MINE SURVEYING. Five credit hours. Short Mining, second year, first term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 11. Prerequisite, Mathematics 14.

2. VENTILATION AND HAULAGE. Five credit hours. Short Mining, second year, second term, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 11. Prerequisite, Mine Engineering 1, and Physics 1.

3. MINE OPERATING. Five credit hours. Short Mining, second year, third term, *Tu.*, *Th.*, *F.*, *at* 10; *M.*, 9 *to* 11. Prerequisite, Mine Engineering 2.

4. MINE SURVEYING. Five credit hours. Mine Engineering and Ceramics, third year, first term, *M.*, *Tu.*, *Th.*, *F.*, *at* 10; *M.*, 1 *to* 3. Prerequisite, Drawing 33, and Mathematics 32.

5. MINE ENGINEERING. Five credit hours. Lectures. Mine Engineering, fourth year, first, second, and third terms, *M.*, *Tu.*, *W.*, *Th.*, *F.*, *at* 8. Prerequisite, Mechanics 3, and Mine Engineering 4. Concurrent, Geology 2.

6. PLANS AND SPECIFICATIONS. Five credit hours. Mine Engineering, fourth year, third term, *M.*, *F.*, *at* 10; *M.*, *Tu.*, 1 *to* 4. Prerequisite, Metallurgy 7, and Mine Engineering. 5

7. SURVEYING. One credit hour. Mine Engineering, third year; Short Mining, second year; second term. Prerequisite, Mine Engineering 1 or 4.

PHARMACY

(First Floor, Chemical Building)

PROFESSOR KAUFFMAN, ASSOCIATE PROFESSOR DYE, MR. SPEASE

6. PHARMACY. Three credit hours. First term. *M.*, *W.*, *F.*, *at* 9. Professor KAUFFMAN.

7. PHARMACY. Five credit hours. Second term. *M.*, *W.*, *at* 9; Laboratory; Short Course, *Th.*, *F.*, 1 *to* 4; Long Course, *Th.*, 9 *to* 12; *S.*, 8 *to* 12. Professor KAUFFMAN, Associate Professor DYE.

8. DISPENSATORIES. Five credit hours. Third term. *Tu.*, *Th.*, *at* 11; Laboratory; Short Course, *Th.*, *F.*, 1 *to* 4; Long Course, *Th.*, 10 *to* 12; *S.*, 8 *to* 12. Professor KAUFFMAN, Associate Professor DYE.

9. PHARMACEUTICAL CHEMISTRY. Five credit hours. First term. *Tu.*, *Th.*, *at* 11; *W.*, *Th.*, 1 *to* 4. Professor KAUFFMAN, Associate Professor DYE.

10. EXTEMPORANEOUS PHARMACY. Five credit hours. Second term. *Tu., Th., at* 11; *Tu., W.,* 1 *to* 4. Professor KAUFFMAN, Associate Professor DYE.

11. GENERAL PRACTICE. Five credit hours. Third term. *Tu., Th., at* 11; *Tu., W.,* 1 *to* 4. Professor KAUFFMAN, Associate Professor DYE.

12. MATERIA MEDICA. Three credit hours. First term. *M., W., F., at* 11. Associate Professor DYE.

13. MATERIA MEDICA. Three credit hours. Second term. *M., W., F., at* 11. Associate Professor DYE.

14. MATERIA MEDICA AND THERAPEUTICS. Three credit hours. Third term. *M., W., F., at* 11. Associate Professor DYE.

15. PHARMACEUTICAL ASSAYING. Five credit hours. First term. Time to be arranged. Professor KAUFFMAN.

16. METHODS OF MANUFACTURE. Five credit hours. Second term. Time to be arranged. Professor KAUFFMAN.

17. GENERAL PHARMACY. Five credit hours. Third term. Time to be arranged. Professor KAUFFMAN.

18. PHARMACOGNOSY. Three credit hours. Second term. Time to be arranged. Associate Professor DYE.

19. PHARMACOGNOSY. Three credit hours. Third term. Time to be arranged. Associate Professor DYE.

20. PHARMACOGNOSY. Three credit hours. First term. Time to be arranged. Associate Professor DYE.

21. TOXICOLOGY. Four credit hours. Third term. Time to be arranged. Associate Professor DYE.

PHILOSOPHY

(Office, Room 321, University Hall)

PROFESSOR SCOTT, ASSISTANT PROFESSOR DAVIES

101. INTRODUCTORY LOGIC. Three credit hours. Third term. *M., W., F., at* 11. Professor SCOTT.

103. ETHICS. Two credit hours. Three terms. *Tu., Th., at* 11. Professor SCOTT.

106. INTRODUCTION TO PHILOSOPHY. Three credit hours. Three terms. *M., W., F., at* 2. Prerequisite, Psychology 1, and Philosophy 101 or 103; or Psychology 1 and Philosophy 152. Professor SCOTT.

107. THEORY OF KNOWLEDGE. Three credit hours. First and second terms. *M., W., F., at* 3. Prerequisite, Philosophy 106. Professor SCOTT.

108. METAPHYSICS. Three credit hours. Third term. *M.*, *W.*, *F.*, *at* 3. Prerequisite, Philosophy 106 and 107. Professor SCOTT.

112. ADVANCED ETHICS. Two credit hours. Three terms, *Tu.*, *Th.*, *at* 3. Prerequisite, one year of elementary work, including Philosophy 103. Professor SCOTT.

115. AESTHETICS. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 2. Open to first year students. Assistant Professor DAVIES.

118. PHILOSOPHY OF SCIENCE. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 2. Prerequisite, one year of elementary work, including Philosophy 101. Professor SCOTT.

119. PHILOSOPHY OF RELIGION. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 2. Prerequisite, at least one year of elementary work. Professor SCOTT.

123. PHILOSOPHY OF MIND. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 11. Prerequisite, Philosophy 151, and Psychology 1, or Philosophy 106 and Psychology 1. Assistant Professor DAVIES.

141. ETHICAL SEMINARY. Two credit hours. Three terms. Prerequisite, one year of elementary work and Philosophy 112. Professor SCOTT.

142. PHILOSOPHICAL SEMINARY. Two credit hours. Three terms. Prerequisite, one year of elementary work and Philosophy 106, 107, and 108. Assistant Professor DAVIES.

151. HISTORY OF ANCIENT PHILOSOPHY. Three credit hours. First term. *M.*, *W.*, *F.*, *at* 8. Open to first year students. Assistant Professor DAVIES.

152. HISTORY OF MODERN PHILOSOPHY. Three credit hours. Second and third terms. *M.*, *W.*, *F.*, *at* 8. Open to first year students. Assistant Professor DAVIES.

155. HISTORY OF CHRISTIAN PHILOSOPHY. Three credit hours. Three terms. *M.*, *Th.*, *F.*, *at* 10. Open to first year students. Assistant Professor DAVIES.

*157. PLATO. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 3. Prerequisite, one year of elementary work, including Philosophy 151. Assistant Professor DAVIES.

159. ARISTOTLE. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 3. Prerequisite, one year of elementary work, including Philosophy 151. Assistant Professor DAVIES.

161. DESCARTES TO KANT. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 11. Prerequisite, one year of elementary work, including Philosophy 152. Assistant Professor DAVIES.

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* Not given in 1908-1909.

166. KANT TO HEGEL. Three credit hours. Three terms. *M.*, *W.*, *F.*, *at* 11. Prerequisite, one year of elementary work, including Philosophy 152. Assistant Professor DAVIES.

168. RECENT AND CURRENT PHILOSOPHY. Three credit hours. Three terms. *M.*, *Th.*, *F.*, *at* 10. Prerequisite, one year of elementary work, including Philosophy 152. Professor SCOTT.

PHYSICAL EDUCATION FOR MEN

(The Gymnasium)

DR. WINGERT, MR. WARFIELD, MR. KIBLER

1. PHYSICAL EDUCATION, consisting of a graded systematic course of healthful body-building exercise and recreation, is required two hours per week during the first year of each student's residence at the University, or until he has successfully completed three terms of this work.

All first year men are required to take a physical examination at opening of the fall term.

PHYSICAL EDUCATION FOR WOMEN

(The Gymnasium)

MISS HOPKINS

1. GYMNASIUM. Three terms. Required of all young women during the first year of their course. *M.*, *Tu.*, *Th.*, *F.*, 9 *or* 11.

2. GYMNASIUM. Three terms. Required of all young women during the second year of their course. *M.*, *Tu.*, *Th.*, *F.*, 8 *or* 10.

PHYSICS

(Office, Room 24, Physics Hall)

PROFESSOR THOMAS, ASSOCIATE PROFESSOR KESTER, ASSISTANT PROFESSOR EARHART, ASSISTANT PROFESSOR BLAKE, MR. BAILEY, MR. SHEARD, MR. KELLOGG, MR. BARNES, MR. COGGINS

1. ELEMENTARY PHYSICS. Recitations, experimental lectures and laboratory. Text: Millikan & Gale, "Elements of Physics." Five credit hours. Short Mining, first year, first and second terms, *M.*, *Tu.*, *W.*, *F.*, *at* 8, and one three-hour laboratory period, *Tu.*, *W.*, *or Th.*, 1 *to* 4. Short Clay-Working and Industrial Arts, second year, first and second terms, *M.*, *Tu.*, *W.*, *F.*, *at* 8, and one laboratory period, as above. Prerequisite, Mathematics 14. Assistant Professor EARHART.

2. GENERAL PHYSICS. Three credit hours. Three terms. *M.*, *W.*, *at* 9, *or Tu.*, *Th.*, *at* 11. One two-hour period, experimental work; one quiz. Prerequisite, Mathematics 21, 22, 23, or 31, 32, 33. Professor THOMAS.

3. PROBLEMS. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 9. Prerequisite, Mathematics 21, 22, 23, or 31, 32, 33. Associate Professor KESTER, Mr. BAILEY, Mr. SHEARD.

4. ELECTRICITY AND MAGNETISM. Three credit hours. First term. *M.*, *Tu.*, *Th.*, *at* 10. Prerequisite, Mathematics 43, and Physics 2 and 3. Professor THOMAS.

5. PHYSICAL LABORATORY. Four credit hours. Electrical Engineering, second year, third term, *M.*, *Tu.*, 1 *to* 4; *W.*, 1 *to* 3, *or Th.*, *F.*, 1 *to* 4; *S.*, 8 *to* 10. Option, Manual Training, third year, first, second, and third terms, *M.*, *Tu.*, 1 *to* 4; *W.*, 1 *to* 3. Prerequisite, Physics 2. Professor THOMAS.

6. PHYSICAL LABORATORY. Five credit hours. Electrical Engineering, third year, first and second terms, *M.*, *Tu.*, *W.*, 1 *to* 4, *or Th.*, *F.*, 1 *to* 4, and *S.*, 8 *to* 11. Prerequisite, Physics 5. Concurrent, Physics 4. Professor THOMAS.

7. PHYSICAL LABORATORY. Two credit hours. Mechanical Engineering, second year, second term, *M.*, *Tu.*, 1 *to* 3, *or Th.*, *F.*, 1 *to* 3. Three credit hours. Mechanical Engineering, second year, third term, *M.*, *Tu.*, 1 *to* 3, *or Th.*, *F.*, 1 *to* 3. Three to five credit hours. First, second, and third terms. Elective. Concurrent, Physics 2.

9. PHYSICAL LABORATORY. Three to five credit hours. A second year's work in Physical Laboratory. Elective. Prerequisite, Physics 6 or 7.

11. GENERAL PHYSICS. Three credit hours. Three terms. Lecture, *W.*, *at* 11 *or* 2. Laboratory, *Tu.*, *Th.*, 8 *to* 10, *or Th.*, *F.*, 2 *to* 4. Assistant Professor BLAKE.

12. LABORATORY. Three to five credit hours. Three terms. *M.*, *Tu.*, *W.*, 1 *to* 4. Prerequisite, course 2 (or may accompany course 2). Assistant Professor BLAKE.

17. THE TEACHING OF PHYSICS. Three credit hours. Third term. Prerequisite, two terms of college work in physics. Time to be arranged.

18. THE PRODUCTION AND USE OF ELECTRIC CURRENTS. Theory and practise. Three credit hours. Third term. Time to be arranged. Prerequisite, course 11, or course 2, and 6 hours in course 12. Professor THOMAS.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

13. ADVANCED LABORATORY. Three to five credit hours. Three terms. Prerequisite, course 2 or 11, and course 12. Professor THOMAS, Associate Professor KESTER, Assistant Professor EARHART, Assistant Professor BLAKE.

16. PHYSICAL SEMINARY. One credit hour. Three terms. Prerequisite, a year of college work in physics.

*19. MOLECULAR PHYSICS. Four credit hours. Third term. *M.*, *Tu.*, *W.*, *Th.*, *at* 8. Prerequisite, Mathematics 28, or equivalent, and 15 credit hours in Physics. Assistant Professor EARHART.

20. THE PRODUCTION OF ELECTRICITY THROUGH GASES. Four credit hours. Third term. *M.*, *Tu.*, *W.*, *Th.*, *at* 8. Prerequisite, Mathematics 28, or equivalent, and fifteen credit hours in Physics. Assistant Professor EARHART.

Courses 19 and 20 given in alternate years.

21. THEORETICAL PHYSICS. (Light). Two credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Mr. BAILEY.

22. THEORY OF OSCILLATIONS WITH THEIR APPLICATIONS TO WIRELESS TELEGRAPHY. Three credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Assistant Professor BLAKE.

23. POTENTIAL FUNCTION, WITH SPECIAL REFERENCE TO ELECTRICITY AND MAGNETISM. Three credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Assistant Professor BLAKE.

24. CONDUCTION OF ELECTRICITY THROUGH METALS FROM THE STANDPOINT OF THE ELECTRONIC THEORY. Three credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Assistant Professor BLAKE.

25. THEORETICAL MECHANICS. Three credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Associate Professor KESTER.

26. THERMODYNAMICS AND ELECTROLYTIC CONDUCTION. Three credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Associate Professor KESTER.

27. GENERAL ELECTRICITY AND MAGNETISM. Three credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Associate Professor KESTER.

* Not given in 1908–1909.

28. THE THEORY AND PRACTICE OF ELECTRICAL MEASUREMENTS. Three to five credit hours. Three terms. Prerequisites, Physics 2, or equivalent, a course in electrical measurement, and Mathematics 41, 42, 43, or equivalents. Professor THOMAS.

FOR GRADUATES

15. RESEARCH LABORATORY. Three to five credit hours. Three terms. Prerequisite, two years of laboratory work in physics. Professor THOMAS, Associate Professor KESTER, Assistant Professor EARHART, Assistant Professor BLAKE.

PHYSIOLOGY

(See Anatomy and Physiology)

POLITICAL ECONOMY

(See Economics and Sociology)

POLITICAL SCIENCE

(See American History and Political Science)

PSYCHOLOGY

(Office, Room 407, University Hall)

PROFESSOR MAJOR, ASSOCIATE PROFESSOR HAINES

1. GENERAL PSYCHOLOGY. Introductory Course. Three credit hours. First and second terms. *M.*, *W.*, *F.*, *at* 11. Professor MAJOR, Associate Professor HAINES.

This course, or the equivalent, is required for admission to all other courses in the department of Psychology. (For third term's work, see Philosophy 101).

2. EDUCATIONAL PSYCHOLOGY. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 11. Prerequisite, Psychology 1, or equivalent. Professor MAJOR.

3. EXPERIMENTAL PSYCHOLOGY. Three credit hours. Three terms. Lecture, *F.*, *at* 1; laboratory, *Th.*, 1 *to* 4, *and F.*, 2 *to* 4, or may be arranged. Prerequisite, Psychology 1. Associate Professor HAINES.

4. MENTAL DEVELOPMENT. Two credit hours. Three terms. *M.*, *F.*, *at* 10. Professor MAJOR.

7. ABNORMAL PSYCHOLOGY. Three credit hours. Second and third terms. *M.*, *W.*, *F.*, *at* 9. Prerequisite, Psychology 1. Associate Professor HAINES.

8. ANIMAL PSYCHOLOGY. Three credit hours. Third term. *M., W., F., at* 11. Prerequisite, Psychology 1. Associate Professor HAINES.

10. SOCIAL PSYCHOLOGY. Three credit hours. First term. *M., Tu., F., at* 10. Prerequisite, Psychology 1. Associate Professor HAINES.

11. FOLK PSYCHOLOGY. Three credit hours. Second term. *M., Tu., F., at* 10. Associate Professor HAINES.

21. THE PSYCHOLOGY OF REASONING. Three credit hours. Third term. *M., Tu., F., at* 10. Associate Professor HAINES.

14. ADVANCED PSYCHOLOGY. Two credit hours. Three terms. Time to be arranged. Prerequisite, Psychology 1. Assistant Professor DAVIES.

*16. INDIVIDUAL PSYCHOLOGY. Two credit hours. Three terms. Professor MAJOR.

20. GENERAL PSYCHOLOGY. Advanced Course. Three credit hours. Three terms. *M., W., F., at* 9. Professor MAJOR.

31. RESEARCH IN EXPERIMENTAL PSYCHOLOGY. Two credit hours or more. Three terms. Associate Professor HAINES.

32. SEMINARY IN PSYCHOLOGY. Two to five credit hours. Three terms. Time to be arranged. Professor MAJOR, Associate Professor HAINES.

33. GRADUATE COURSES IN PSYCHOLOGY. Three to ten credit hours. Three terms. Professor MAJOR, Associate Professor HAINES.

RHETORIC AND ENGLISH LANGUAGE

(See English)

ROMANCE LANGUAGES AND LITERATURES

(Office, Room 305, University Hall)

PROFESSOR BOWEN, ASSOCIATE PROFESSOR BRUCE, ASSISTANT PROFESSOR INGRAHAM, ASSISTANT PROFESSOR PEIRCE, MR. EWINGTON

I. FRENCH

1. ELEMENTARY FRENCH. Four credit hours. Three terms. Grammar: Fraser and Squair's, or equivalent. Reader: Aldrich and Foster's, or Bowen's First Scientific. Historical and narrative prose; one or more prose comedies. Sec. I, *M., Tu., Th., F., at* 9 (Arts only). Sec. II, III, and IV, *M., Tu., Th., F., at* 10. Sec. V, *M., Tu., Th., F., at* 11 (Ag. and Engin. only). Sec. VI, and VII, *Tu., W., Th., F., at* 2. All instructors in the department teach one or more sections of this course.

* Not given in 1908–1909.

2. MODERN FRENCH LITERATURE. Four credit hours. Three terms. Sec. I, and II, *M.*, *Tu.*, *Th.*, *F.*, *at* 10. Sec. III, *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Prerequisite, course, 1 or equivalent. Associate Professor BRUCE, Assistant Professor PEIRCE, Mr. EWINGTON.

3. SCIENCE READING. Four credit hours. Third term. *Tu.*, *W.*, *Th.*, *F.*, *at* 2. Prerequisite, course 2, first and second terms. Assistant Professor PEIRCE.

4. FRENCH COMEDY OF THE SEVENTEENTH CENTURY. Three credit hours. First term. Sec. I, *M.*, *W.*, *F.*, *at* 8. Sec. II, *M.*, *W.*, *F.*, *at* 11. Given biennially, alternating with course 16. Prerequisite, courses 1 and 2. Assistant Professor PEIRCE, Professor BOWEN.

5. FRENCH TRAGEDY. Three credit hours. Second term. Sec. I, *M.*, *W.*, *F.*, *at* 8. Sec. II, *M.*, *W.*, *F.*, *at* 11. Given biennially, alternating with course 17. Prerequisite, courses 1 and 2. Assistant Professor PEIRCE, Professor BOWEN.

6. SEVENTEENTH CENTURY PROSE. Three credit hours. Third term. Sec. I, *M.*, *W.*, *F.*, *at* 8. Sec. II, *M.*, *W.*, *F.*, *at* 11. Given biennially, alternating with course 18. Prerequisite, courses 1 and 2. Assistant Professor PEIRCE, Professor BOWEN.

7. ADVANCED PROSE COMPOSITION. One credit hour. Three terms. Sec. I, *Tu.*, *at* 8. Sec. II, *Tu.*, *at* 11. Prerequisite, courses 1 and 2. Assistant Professor PEIRCE, Professor BOWEN.

8. PROSE OF THE ROMANTIC PERIOD. Two credit hours. First term. *Tu.*, *Th.*, *at* 9. Given biennially, alternating with course 11. Prerequisite, courses 1 and 2. Associate Professor BRUCE.

9. RECENT FRENCH PROSE. Two credit hours. Second term. *Tu.*, *Th.*, *at* 9. Given biennially, alternating with course 12. Prerequisite, courses 1 and 2. Associate Professor BRUCE.

10. PRACTISE IN SPEAKING AND WRITING FRENCH. (Based on Daudet's Stories). Two credit hours. Third term. *Tu.*, *Th.*, *at* 9. Prerequisite, the consent of the instructor. Given biennially, alternating with course 13. Associate Professor BRUCE.

*11. FRENCH TRAVEL WRITERS. Two credit hours. First term. Given biennially, alternating with course 8. Prerequisite, courses 1 and 2.

*12. EIGHTEENTH CENTURY PROSE. Two credit hours. Second term. Given biennially, alternating with course 9. Prerequisite, courses 1 and 2.

*13. ADVANCED CONVERSATIONAL PRACTISE. (Based on Stories of Coppee and Maupassant.) Two credit hours. Third term. Prerequisite, the consent of the instructor. Given biennially, alternating with course 10.

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* Not given in 1908–1909.

14. FRENCH SEMINARY A. Two credit hours. Three terms. *M.*, 3 *to* 5. Given biennially, alternating with course 15. Prerequisite, courses 1, 2, 4, 5, 6, and 7, or an equivalent. Professor BOWEN.

*15. FRENCH SEMINARY B. Two credit hours. Three terms. Given biennially, alternating with course 14. Prerequisite, courses 1, 2, 4, 5, 6, and 7, or an equivalent.

*16. FRENCH COMEDY OF THE EIGHTEENTH CENTURY. Three credit hours. First term. Given biennially, alternating with course 4. Prerequisite, courses 1 and 2.

*17. FRENCH SOCIETY IN THE SEVENTEENTH CENTURY. Three credit hours. Second term. Given biennially, alternating with course 5. Prerequisite, courses 1 and 2.

*18. PRECURSORS OF FRENCH ROMANTICISM. Three credit hours. Third term. Given biennially, alternating with course 6. Prerequisite, courses 1 and 2.

II. ITALIAN

1. ELEMENTARY ITALIAN. Two credit hours. Three terms. Grammar (Edgren's or Young's) and Bowen's Italian Reader. Modern Prose. Comedy (Goldoni). Time to be arranged. Students are advised to postpone the election of this course until they have completed French 1, or its equivalent. Associate Professor BRUCE.

2. ADVANCED ITALIAN. Two credit hours. Three terms. Manzoni (I Promessi Sposi). Dante (Vita Nuova, Inferno). With lectures. *M.*, *W.*, *at* 3. Prerequisite, course 1. Associate Professor BRUCE.

III. SPANISH

1. ELEMENTARY SPANISH. Four credit hours. Three terms. Grammar (Hills' and Ford's or Edgren's), and Ingraham's Victoria y Otros Cuentos. Sec. I, *M.*, *Tu.*, *Th.*, *F.*, *at* 9. Sec. II, *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Sec. III, and IV, *Tu.*, *W.*, *Th.*, *F.*, *at* 2. Assistant Professor INGRAHAM, Assistant Professor PEIRCE, Mr. EWINGTON.

2. MODERN SPANISH LITERATURE. Four credit hours. Three terms. *Tu.*, *W.*, *Th.*, *F.*, *at* 3. Prerequisite, course 1, or equivalent. Assistant Professor INGRAHAM.

3. CLASSICAL PROSE AND DRAMA. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 2. Prerequisite, course 1. Professor BOWEN, or Assistant Professor INGRAHAM.

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* Not given in 1908–1909.

GRADUATE COURSES IN ROMANCE LANGUAGES

31. INTRODUCTION TO ROMANCE PHILOLOGY. Two credit hours. Three terms. Time to be arranged. Professor BOWEN.

32. OLD PROVENCAL. One credit hour. Three terms. Time to be arranged. Professor BOWEN.

33. HISTORY OF THE LITERARY MOVEMENT IN FRANCE IN THE FIRST HALF OF THE NINETEENTH CENTURY. Two credit hours. Three terms. Time to be arranged. Associate Professor BRUCE.

RURAL ECONOMICS

(Townshend Hall)

PROFESSOR PRICE

1. RURAL ECONOMICS. Four credit hours. Third term. Two-year courses in Agriculture and Horticulture. Professor PRICE.

2. FARM MANAGEMENT. Four credit hours. First term. *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Professor PRICE.

4. HISTORY AND LITERATURE OF AGRICULTURE. Four credit hours. Second term. *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Professor PRICE.

6. AGRICULTURAL ECONOMICS. Four credit hours. Third term. *M.*, *Tu.*, *Th.*, *F.*, *at* 11. Professor PRICE.

SCHOOL ADMINISTRATION

(Office, Room 102, University Hall)

PROFESSOR W. W. BOYD

1. THE ORGANIZATION OF PUBLIC SCHOOLS. Three credit hours. First term. *Tu.*, *W.*, *Th.*, *at* 2.

2. THE ADMINISTRATION OF PUBLIC SCHOOLS. Three credit hours. Second term. *Tu.*, *W.*, *Th.*, *at* 2.

3. THE SUPERVISION OF PUBLIC SCHOOLS. Three credit hours. Third term. *Tu.*, *W.*, *Th.*, *at* 2.

10. THE SECONDARY SCHOOL. Two credit hours. Three terms. *Tu.*, *Th.*, *at* 3.

SHOP WORK

(See Industrial Arts)

SOCIOLOGY

(See Economics and Sociology)

SPANISH

(See Romance Languages)

VETERINARY MEDICINE

(Veterinary Laboratory)

PROFESSOR WHITE, PROFESSOR SISSON, ASSOCIATE PROFESSOR BRUMLEY, ASSOCIATE PROFESSOR UDALL, ASSOCIATE PROFESSOR PHILLIPS, ASSISTANT PROFESSOR FITZGERALD

11. SYSTEMATIC ANATOMY. OSTEOLOGY, ARTHROLOGY. Eight credit hours. First year, first term. Professor SISSON, Assistant Professor FITZGERALD.

12. MYOLOGY, SPLANCHOLOGY. Ten credit hours. First year, second term. Professor SISSON, Assistant Professor FITZGERALD.

13. ANGIOLOGY AND NEUROLOGY. Ten credit hours. First year, third term. Professor SISSON, Assistant Professor FITZGERALD.

14. GENERAL PATHOLOGY AND MORBID ANATOMY. Five credit hours. Second year, first term. Text-book: Kitt's General Pathology. Associate Professor PHILLIPS.

15. THEORY AND PRACTISE OF VETERINARY MEDICINE. Five credit hours. Second year, second term. *M.*, *T.*, *W.*, *F.*, *at* 9, *Th. at* 1. Text-books: Hayes-Friedberger and Froehner, Special Pathology and Therapeutics—White-Fischer-Malkmus, Physical Diagnosis. Professor WHITE.

16. THEORY AND PRACTISE OF VETERINARY MEDICINE. Five credit hours. Second year, third term. *Daily at* 1. Professor WHITE.

18. SURGICAL DISEASES. Three credit hours. Second and third years, three terms. Reference book: Moller's Special Surgery. Associate Professor UDALL.

19. CLINICS. Three credit hours. Five terms. *M.*, *Tu.*, *W.*, *Th.*, *F.*, 2 *to* 4, *S.*, 10 *to* 12. Professor WHITE, Associate Professors UDALL and BRUMLEY.

21. THEORY AND PRACTISE. Third year, first term. *Daily at* 9. Professor WHITE.

22. THERAPEUTICS. Three credit hours. Third year, third term. Associate Professor BRUMLEY.

23. OBSTETRICS. Five credit hours. Third year, third term. Associate Professor UDALL.

24. GENERAL SURGERY. Five credit hours. Second year, second term. *T.*, *W.*, *F.*, *at* 8, *M.*, *Th.*, *at* 11. Frohmer's General Surgery. Associate Professor UDALL.

25 and 41. PRACTISE IN OPERATING. Three credit hours. Third year, first term. Text-book: Williams' Surgical and Obstetrical Operations. Associate Professors UDALL and BRUMLEY.

26. HORSE SHOEING. Three credit hours. Third year, first term. *M.*, *W.*, *F.*, *at* 8. Text-book: Reek's Diseases of Horses' Feet. Professor WHITE.

27. MEAT INSPECTION. Three credit hours. Third year, second term. Text-book: Ostertag's Meat Inspection. Associate Professor PHILLIPS.

28. VETERINARY ANATOMY. Four credit hours. First term. *M.*, *Tu.*, *Th.*, *F.*, *at* 10. Professor SISSON.

29. VETERINARY PRACTISE. Four credit hours. Second term. *M.*, *Tu.*, *Th.*, *F.*, *at* 10. Professor WHITE.

30. VETERINARY HYGIENE AND SANITATION. Four credit hours. Third term. *M.*, *Tu.*, *Th.*, *F.*, *at* 10. Professor WHITE.

31. CANINE DISEASES. Five credit hours. Third year, second term. Text-book: Surgical Diseases and Surgery of the Dog—Cecil French. Associate Professor BRUMLEY.

33. OPHTHALMOLOGY. Two credit hours. Third year, third term. *Tu.*, *Th.*, *at* 9. Professor WHITE.

34. PATHOLOGY LABORATORY. Three credit hours. Second year, second and third terms. Associate Professor PHILLIPS.

36. PATHOLOGY LABORATORY. Three credit hours. Third year, first term. Associate Professor PHILLIPS.

37. TOPOGRAPHIC ANATOMY. Seven credit hours. Second year, first term. Professor SISSON, Assistant Professor FITZGERALD.

38. MATERIA MEDICA. Five credit hours. Second year, three terms. Text-book: Winslow's Veterinary Modern U. S. Pharmacopoea. Associate Professor BRUMLEY.

40. DIAGNOSIS OF SURGICAL DISEASES. Three credit hours, second year, third term. Lectures and clinical demonstrations. Associate Professor UDALL.

ZOOLOGY AND ENTOMOLOGY

(Office, Room 1, Biological Hall)

PROFESSOR OSBORN, ASSOCIATE PROFESSOR HINE, ASSOCIATE PROFESSOR LANDACRE, MR. JACKSON, MR. MORGULIS, MR. SEVERIN

1. INVERTEBRATE AND VERTEBRATE. Three credit hours. Invertebrate, first and second terms; Vertebrate, third term, *M.*, *F.*, *at* 10; *M.*, *or W.*, *or F.*, 1 *to* 3. Professor OSBORN, Associate Professor LANDACRE.

2. COMPARATIVE ANATOMY OF VERTEBRATES. Three to five credit hours. Three terms. Quiz, *W.*, *at* 1. Laboratory, *M.*, *Tu.*, *W.*, 1 *to* 4. Prerequisite, course 1, or equivalent. Associate Professor LANDACRE.

3. ECONOMIC ENTOMOLOGY. Three credit hours. Third term. Lecture, *Tu., Th., at* 8; laboratory, *M., F.*, 10 *to* 12. Prerequisite, Course 4. Associate Professor HINE.

4. ECONOMIC ENTOMOLOGY. Three credit hours. Three terms. Lecture, *Tu., Th., at* 8; laboratory, *M., F.*, 10 *to* 12. Prerequisite, Course 1. Associate Professor HINE.

7. SYSTEMATIC AND PRACTICAL ENTOMOLOGY. Four credit hours. Elective in short course in Agriculture, first, second, and third terms; required in first year of short course in Horticulture. Lectures, laboratory, and field work. Time to be arranged. Associate Professor HINE.

8. PARASITES OF DOMESTIC ANIMALS. One credit hour. First term. Elective. Time to be arranged. Professor OSBORN.

9. SPECIAL ENTOMOLOGY. Four credit hours. First term. Elective in Junior or Senior year. Time to be arranged. Professor OSBORN.

10. SPECIAL ENTOMOLOGY. Four credit hours. Second term. Elective in Junior or Senior year. Time to be arranged. Professor OSBORN.

11. SPECIAL ENTOMOLOGY. Four credit hours. Third term. Elective in Junior or Senior year. Time to be arranged. Professor OSBORN.

12. GROSS ANATOMY OF THE FROG. Three to five credit hours. First term. Time to be arranged. Prerequisite, course 1. Associate Professor LANDACRE.

13. MINUTE ANATOMY OF THE FROG. Three to five credit hours. Second term. Time to be arranged. Prerequisite, course 1. Associate Professor LANDACRE.

14. EMBRYOLOGY OF THE FROG. Three to five credit hours. Second term. Time to be arranged. Prerequisite, course 1. Associate Professor LANDACRE.

15, 16, 17. INVERTEBRATE MORPHOLOGY. Three to five credit hours. Three terms. Time to be arranged. Prerequisite, course 1. Professor OSBORN.

18. INVERTEBRATE EMBRYOLOGY. Three to five credit hours. Three terms. Laboratory. Time to be arranged. For graduates. Prerequisite, courses 1 and 2. Professor OSBORN.

19. VERTEBRATE EMBRYOLOGY: Karyokinesis, etc. Three to five credit hours. First term. Lecture, *Th., at* 1. Laboratory, *Th., F.*, 1 *to* 4. Prerequisite, course 1. Associate Professor LANDACRE.

20. VERTEBRATE EMBRYOLOGY: Chick and Mammal. Three to five credit hours. Second and third terms. Lecture, *Th., at* 1;

Th., F., 1 *to* 4. Prerequisite, courses 1 and 19. Associate Professor LANDACRE.

21. COMPARATIVE NEUROLOGY. Three to five credit hours. Three terms. Time to be arranged. Prerequisite, course 1, or equivalent, but is open to advanced students in psychology and pedagogy. Associate Professor LANDACRE.

22. CYTOLOGY. Three to five credit hours. Three terms. Time to be arranged. Prerequisite, course 1, and equivalent of 2, or 15, 16, 17. Professor OSBORN.

23. ENTOMOLOGY. Three to five credit hours. Three terms. Time to be arranged. Prerequisite, course 1. Professor OSBORN.

24. ORNITHOLOGY. Two credit hours. Three terms. Lecture, *M.*, *at* 10. Laboratory, to be arranged. Associate Professor HINE.

25. RESEARCH WORK. Five to ten credit hours. Three terms. Prerequisite, course 1, and the equivalent of 2, or 15, 16, 17, or 19, 20. Professor OSBORN.

26. SEMINARY. One credit hour. Three terms. *Th.*, *at* 4. Professor OSBORN, Associate Professors LANDACRE and HINE.

27. TEACHER'S COURSE. Two or three credit hours. Three terms. Professor OSBORN, Associate Professor LANDACRE.

28. EMBRYOLOGY. Three credit hours. Veterinary Medicine, first year, third term. *M.*, *W.*, *F.*, *at* 8. Associate Professor LANDACRE.

30. INVERTEBRATE ZOOLOGY. Five credit hours. For graduates only. Time to be arranged. Professor OSBORN.

31. INVERTEBRATE AND VERTEBRATE. Three credit hours. Three terms. Lecture, *Tu.*, *Th.*, *at* 8, *or M.*, *F.*, *at* 10. Laboratory, *Tu., or Th.*, 1 *to* 3. Professor OSBORN, Associate Professor LANDACRE.

33. VERTEBRATE EMBRYOLOGY. Three to five credit hours. Study of Karyokinesis, Germ layers, organogeny, etc. For graduates only. Associate Professor LANDACRE.

34. EVOLUTION. Three credit hours. Three terms. Prerequisite, one year of Zoology, or equivalent. Professor OSBORN, Associate Professor LANDACRE.

REGISTER OF STUDENTS

1907–1908

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE

GRADUATE STUDENTS

Name.	*Home Address.*
Davis, William Joseph, B. Sc. (Agr.)	Plain City
Hyslop, George Robert, B. Sc. (Agr.)	Deshler
McBeth, Ira Guy, B. Sc. (Agr.)	Georgetown

UNDERGRADUATES

Name.	*Course.*	*Rank.*	*Home Address.*
Acklin, Donald Ridenour,	Agr.	Senior	Toledo
Agler, Jack Paul,	Agr. S.	First	Columbus
Ainsworth, Merle F.,	Agr. S.	First	Mason City, Ill.
Albyn, Herbert A	Agr.	Special	Dayton
Allen, Harry Earle,	Agr.	Sophomore	Van Wert
Allen, Katharine Dean,	Dom. Sci.	Freshman	Troy
Allen, Ora Allison,	Agr. S.	Special	Jeffersonville
Anspon, Berthold W.,	H. & F.	Sophomore	Dayton
Arms, Helen,	Dom. Sci.	Freshman	Columbus
Arter, Charles B.,	Agr. S.	First	Upper Sandusky
Augspurger, Victor Holly	Agr.	Freshman	Middletown
Bachtel, Myron Ansel,	Agr.	Freshman	Medina
Bailey, John S.,	Dairy		Farmdale
Barber, Harold Eugene,	Agr. S.	Second	Brunswick
Barker, Joseph Frederick,	Agr.	Senior	Athens
Barlow, Henry Case,	Agr.	Sophomore	Hudson
Barnes, Nellie F.,	Dom. Sci. S.	First	Columbus
Barnes, Paul Hamlin,	Agr.	Freshman	Wellsville
Barnes, Paul Williamson	Agr.	Freshman	Sandusky
Barr, Ralph Lester	Agr. S.	Second	Lancaster
Barrows, Frances W., B.A.,	D.Sci.	Special	Columbus
Bartler, Milford Hale,	Agr.	Senior	West View
Bear, Firman Edward,	Agr.	Senior	Germantown
Belden, Lucy Phoebe	Dom. Sci.	Sophomore	Middlefield
Bembower, William,	H. & F.	Sophomore	Berlinville
Bennage, Elvin Wesley,	Agr.	Sophomore	Bath
Benzing, Elmer Leonard,	Agr.	Junior	Cincinnati
Betz, Emerson Roy,	Agr.	Special	South Columbus
Billman, Lulu Florence,	Dom. Sci	Freshman	Dayton
Blake, Rosalia Ella,	Dom. Sci.	Freshman	Boulder, Col.
Blakeslee, Elihu Burritt,	H. & F.	Sophomore	Medina
Blohm, Anna Frances,	Dom. Sci.	Sophomore	Marietta
Boltz, George E.	Agr.	Sophomore	Stone Creek

Name.	*Course.*	*Rank.*	*Home Address.*
Borror, Raymond Merl,	Agr.	Senior	Grove City
Bosworth, Geraldine,	Dom. Sci.	Freshman	Cleveland
Brittain, Mary C.,	Dom. Sci.	Freshman	Delaware
Brownfield, William W.,	Agr.	Freshman	Uniontown, Pa.
Bruce, William French,	Agr.	Freshman	Delta
Cadwallader, John,	Agr.	Sophomore	Gano
Call, Howard M.,	Agr.	Freshman	Kent
Cardona, Miguel,	Agr.	Special	Gualaco, Honduras
Carson, Elba Asbury,	Agr. S.	Second	East Monroe
Case, Harry,	Agr. S.	First	Hudson
Chakeabarti, Nagen,	Agr.	Freshman	Calcutta, India
Clawson, Joseph Ernest,	Agr.	Senior	Okeana
Clum, W. Ray,	Agr.	Sophomore	Thornville
Cockins, Laura Grace,	Dom. Sci.	Senior	Columbus
Collison, Reginald Clifton,	Agr.	Senior	Columbus
Collison, Stanley Edgar,	Agr.	Senior	Columbus
Comstock, Edith Wilson,	Dom.Sci.	Sophomore	Dayton
Corotis, Maxwell Edward,	H. & F.	Senior	New York, N. Y.
Cory, Robert Walter,	Agr.	Senior	Frankfort
Cott, Myrna,	Dom. Sci. S.	First	Columbus
Co Van, Alice,	Dom. Sci. S.	First	Columbus
Cox, John Herron,	Agr.	Senior	New Concord
Crane, Alice,	Dom. Sci.	Freshman	Columbus
Cross, Jessie,	Dom. Sci.	Sophomore	Racine
Dalbey, May,	Dom. Sci.	Senior	Westerville
Darst, Holden,	Agr.	Sophomore,	Covington
Dass, Rajani Kanta,	Agr.	Freshman	Daeca, India
Davis, Walter Leslie,	Agr. S.	Second	Lebanon
Degenfelder, Joseph C.,	Dairy		Swanton
Denman, Lulu,	Dom. Sci.	Freshman	Columbus
Denny, Mark E.,	H. & F.	Sophomore	Middletown
DePue, Chalmers Webster,	H.&F.	Junior	Columbus
DeWolfe, Findley,	Agr.	Freshman	Pataskala
Dilatush, William Henry,	Agr.	Junior	Lebanon
Dix, George A.,	Agr. S.	First	Delaware
Dobbs, Wallace,	Agr. S.	First	Windham
Dornbusch, Louise,	Dom. Sci.	Sophomore	Dayton
Duncan, John A.,	Dairy		Macedonia
Dunlap, Philip M.,	Agr.	Sophomore	Chillicothe
Earl, Jessie,	Dom. Sci. S.	Second	Columbus
Echols, Corrine Louise,	Dom. Sci.	Sophomore	Columbus
Ecker, Frances Mae,	Dom. Sci.	Freshman	Gallipolis
Eckmann, Emil Clarence,	Agr.	Junior	Columbus
Edmonds, James L.,	Agr.	Senior	Mansfield
Edmonds, Mary Elizabeth,	Do.Sci	Sophomore	Mansfield
Eickhoff, Gregory Harte,	Agr.	Sophomore	San Francisco, Cal.
Elliott, James B.,	Agr.	Sophomore	Defiance
Elliott, Stella Gray,	Dom. Sci. S.	First	Columbus
Elser, William Lester,	Agr.	Junior	Galion
Enders, Herman,	Agr. S.	First	Sidney
Evans, Charles Leonard,	Agr.	Sophomore	Hillsboro
Evans, Enoch Ray,	Agr. S.	First	Raymond

Name.	*Course.*	*Rank.*	*Home Address.*
Evans, Harry,	Agr.	Junior	West Liberty
Evans, Nancy Lee,	Dom. Sci.	Freshman	Plain City
Evans, Perry,	Agr.	Freshman	Columbus
Evans, Walter Laylin,	H. & F.	Freshman	Norwalk
Ewing, Perry Van,	Agr.	Freshman	Centerville
Fagan, Frank Nelson,	H. & F.	Sophomore	Tidrow
Fair, Clyde Harrison,	Agr. S.	First	Shiloh
Faxon, Richard,	Agr.	Sophomore	Elyria
Fee, Charles,	Agr. S.	First	Cortland
Fisher, Calvin K.,	Agr.	Senior	Haines, Oregon
Fleming, Martha Mildred,	Do. Sci.	Senior	Columbus
Fleming, Mary,	Dom. Sci.	Senior	Columbus
Freeman, Frances,	Dom. Sci.	Sophomore	Tippecanoe City
Garhart, Madge Estella,	Dom. Sci.	Freshman	Columbus
Garvin, Alma,	Dom. Sci.	Freshman	Cambridge, Cy. Ind.
George, John Gilbert	Agr.	Sophomore	Venedocia
Gerlaugh, Ella,	Dom. Sci.	Freshman	Osborn
Glock, Eda Stella,	Dom. Sci.	Freshman	Columbus
Gourley, Joseph Harvey,	H. & F.	Senior	Lancaster
Graham, Albert B.,	Agr.	Special	Columbus
Greenwood, Georgene W.,	Do. Sci.	Freshman	Columbus
Gribben, John Upton,	Agr.	Special	Columbus
Hamp, W. H.,	Dairy		Delta
Harbage, Raymond R.,	Agr.	Freshman	West Jefferson
Harbage, Robert S.,	Agr.	Freshman	West Jefferson
Harbarger, Lelia Merle,	Dom. Sci	Sophomore	Columbus
Harris, Harold Goering,	Agr. S.	First	Bellefontaine
Hart, Stanley S.,	Agr.	Junior	West Alexandria
Hartman, Scott Clifford,	Agr.	Senior	North Fairfield
Haughton, Edna M.,	Dom. Sci.	Sophomore	Columbus
Haven, Claire Elwood,	Agr. S.	First	Grafton
Hendrix, Byron Murray,	Agr.	Junior	Lewisburg
Hendrix, Wilbur Jordon,	Agr.	Sophomore	Lewisburg
Hengst, Clarence Wilson,	Agr.	Senior	Lancaster
Hensel, Edward Daniel,	Dairy		West Rushville
Hervey, John D.,	Agr. S.	First	Jefferson
Hess, Anna Reeb,	Dom. Sci. S.	First	Columbus
Hill, Edwin Ruggles,	Agr. S.	Special	Berlin Heights
Hines, Mrs. Elizabeth Smith,	Dom. Sci. S.	Second	Scio
Hite, Katheryne,	Dom. Sci.	Sophomore	Columbus
Hoddy, Emmett Jackson,	Agr.	Junior	Columbus
Howard, Mrs. Anne R.,	Dom. Sci.	Special	Columbus
Hundertmark, Roy Edw.,	Agr.	Junior	Geneva
Hunt, Bessie Mary,	Dom. Sci. S.	First	Columbus
Hunt, Mrs. Irene May, A. B.,	Dom. Sci.	Special	Columbus
Huntington, Jane,	Dom. Sci.	Special	Columbus
Hurst, Earle Rathbourn,	Agr.	Sophomore	Washington C. H.
Huston, Florence Eva,	Dom. Sci.	Freshman	Mt. Healthy
Hyatt, Harry C.,	Agr.	Freshman	Cleveland
Innis, Mildred A.,	Dom. Sci.	Sophomore	Columbus

Name.	*Course.*	*Rank.*	*Home Address.*
Janes, Frank L.,	Agr.	Sophomore	Jeffersonville
Janes, Thomas A.,	Agr.	Sophomore	Jeffersonville
Jefferson, Elizabeth,	Dom. Sci.	Junior	Danville
Johnson, James Robert,	Agr.	Freshman	Columbus
Johnson, Orville M.,	Agr.	Senior	New Vienna
Johnson, Stewart D.,	Agr.	Freshman	Springboro
Johnston, Orie Marie,	Dom. Sci.	Freshman	Grove City
Jones, Thomas A.,	Agr.	First	Radnor
Kampf, William Fred'k,	Agr. S.	First	Rome
Kauffman, Treva E.,	Dom. Sci.	Freshman	Osborne
Keil, Joseph Benjamin,	Agr. S.	First	Marion
Keller, Laura Edith,	Dom. Sci.	Sophomore	Zanesville
Kelley, Roy W.,	Agr.	Freshman	Hillsboro
Kenney, Ralph,	Agr.	Freshman	Centerville
Kidwell, Amy Lee,	Dom. Sci.	Sophomore	Mt. Sterling
Kinney, Edmund,	Agr.	Senior	Yellow Springs
Kirsch, William Fred.,	Agr. S.	Sophomore	Cleveland
Knoop, James Ross,	Agr. S.	First	Casstown
Kohnle, Robert,	Agr.	Freshman	Dayton
Krohn, Raymond,	Agr. S.	First	Grelton
Laird, Ernest Ray,	Agr.	Freshman	London
Leaming, Anna Stewart,	Dom.Sci.	Senior	Romney, Ind.
Lee, Benjamin Y.,	Agr.	Freshman	Columbus
Lee, Edwin Gregory,	Agr.	Special	Hudson
Levitt, John A.,	Agr. S.	First	Kieff, Russia
Lied, May Eva,	Dom. Sci. S.	First	Columbus
Linebaugh, Harry,	Agr.	Freshman	Grove City
Livingston, George,	Agr.	Junior	Ansonia
Lockheart, Aaron,	Agr. S.	First	Bellville
Long, Grover Cleveland,	Agr.	Sophomore	Cardington
Love, James D.,	Dairy		New Salem
Lucas, Marian Curtis,	Dom. Sci.	Junior	Columbus
Luginbill, Philip,	Agr.	Sophomore	Columbus Grove
Lytle, John La Maje,	Agr. S.	First	Columbus
McBroom, Jessie Marian,	Do. Sci.	Special	Glouster
McCall, Lena Carroll,	Dom. Sci.	Senior	Hebron
McClelland, Heber Bacon,	Agr.S.	Second	Cumberland
McCray, Arthur Howard,	H. & F.	Senior	Duvall
McDowell, Robert Oak,	Agr.	Sophomore	Medina
McFarland, Frank Theo.,	Agr. S.	First	Sunbury
McKee, James Albert,	Agr.	Junior	Portsmouth
McLaughlin, Thos. Edwin,	Agr.S.	First	Columbus
McLellan, Marie Fansher,	Do. Sci.	Freshman	Columbus
Mack, Harry George,	Agr. S.	First	Leipsic
Major, George Hay,	Agr.	Freshman	Columbus
Makepeace, Lillian,	Dom. Sci.	Sophomore	Columbus
Maris, Isabel Fletcher,	Dom. Sci.	Freshman	Columbus
Marsh, Harry A.,	Agr.	Freshman	Amlin
Martin, Clare,	Agr.	Freshman	New Castle, Ind.
Maxwell, Ray S.,	H. & F.	Freshman	Lexington
Mead, Clarence S.,	Agr. S.	First	Greenwich
Meeks, Francis Edward,	Dairy		Columbus

Name.	*Course.*	*Rank.*	*Home Address.*
Merrell, George Bewley,	Agr.	Senior	Cincinnati
Messier, Jennie,	Dom. Sci. S.	First	Columbus
Michel, Frances Sarah,	Dom. Sci.	Freshman	Columbus
Mickle, Edward Harrison,	Agr.	Freshman	Springfield
Miller, Laura May,	Dom. Sci.	Sophomore	Dubuque, Iowa
Miller, Marie Louise,	Dom. Sci.	Freshman	Columbus
Miskimen, Burt,	Agr.	Senior	Plainfield
Miskimen, Mabel,	Dom. Sci.	Sophomore	Newcomerstown
Moist, Albert Reynolds,	Agr.	Senior	Kinsey
Moore, Melbourn D.,	Agr.	Junior	Salem
Morrow, Richard B.,	Agr.	Sophomore	Campbellstown
Morrow, Vance R.,	Agr. S.	First	Steubenville
Mote, Don Carlos,	Agr.	Freshman	Greenville
Mowls, Leward,	Agr.	Sophomore	Waynesburg
Mungen, John H.,	Agr.	Special	Xenia
Murrey, Enno E.,	Dairy		Grelton
Myers, Edith,	Dom. Sci.	Freshman	Reynoldsburg
Nesbitt, Edith Mary,	Dom. Sci.	Sophomore	Columbus
Nimon, M. A.,	Dairy		Medina
Noble, Philip Edgar,	Agr. S.	First	North Royalton
Noyes, Ada Amelia,	Dom. Sci.	Senior	Colebrook, N. H.
Oaks, Albert C.,	Agr. S.	First	Union
Olin, Blanche Marie,	Dom. Sci.	Junior	Akron
Orosco, Pantaleon,	Agr. S.	First	Guadalajara, Mexico
Oyler, Leigh Marsh,	Agr.	Sophomore	Okeana
Page, Arthur Ray,	Agr.	Freshman	Dennison
Page, Florence,	Dom. Sci. S.	First	Felicity
Parks, Thaddeus Hedges,	Agr.	Junior	Ashville
Penisten, Edwin H.,	Agr.	Sophomore	Chillicothe
Peters, Florence May, B. A.,	Dom. Sci.	Special	Columbus
Peters, Mary Louise, B. A.,	Dom. Sci.	Special	Columbus
Pflueger, Otto W.,	H. & F.	Freshman	Carey
Phillips, Thomas D.,	Agr.	Sophomore	Columbus
Pierce, Ruth Meade,	Dom. Sci.	Senior	Harrison
Pitkin, Ava Vesta,	Dom. Sci.	Junior	Galion
Pitkin, Ruby Louise,	Dom. Sci.	Freshman	Galion
Plumb, Helen Gladwin,	Dom. Sci.	Sophomore	Columbus
Portz, Grover Cleveland,	Agr.	Freshman	Newcomerstown
Postle, Ralph Aylsworth,	Agr.	Sophomore	Camp Chase
Quinn, Allen,	Agr.	Sophomore	Mantua
Ransom, Katharine,	Dom. Sci.	Freshman	Columbus
Ransom, Leo Bailey,	Agr.	Sophomore	Sandusky
Reagin, Orville Waters,	Agr.	Special	Forney, Texas
Richards, Elva,	Dom. Sci.	Freshman	Columbus
Richardson, Charles Morill,	Agr.	Sophomore	Willoughby
Rinehart, Frank Edward,	Agr.	Sophomore	Eaton
Risser, Edwin Alvin,	Agr.	Sophomore	Pandora
Risser, Louis David,	Agr.	Senior	Pandora
Rivera, Antonio,	Agr.	Sophomore	Catamarca, A. R.
Roberts, Esther A.,	Dom. Sci.	Freshman	Columbus

Name.	*Course.*	*Rank.*	*Home Address.*
Rodgers, Roland Weston,	Agr.	Senior	Pleasant Ridge
Rogers, Homer L.,	Agr. S.	First	Jamestown
Rothrock, Philip Lewis,	Agr.	Senior	Washington C. H.
Rummelt, Oscar H.,	Dairy		North Bloomfield
Runkle, Olive Leska,	Dom. Sci.	Freshman	Ashville
Ruth, Eugene,	Agr.	Freshman	Sandusky
Ryder, John C.,	Agr. S.	First	Lewisburg
Sands, Forrest Eveleen,	Do. Sci.S.	Second	Milan
Saul, John Allen,	Agr. S.	First	Bloomville
Schaal, Wilbert,	Agr. S.	First	Flushing
Schanfarber, Rosaline,	Dom. Sci.	Sophomore	Columbus
Schermerhorn, John H.,	Agr.	Freshman,	Brimfield, Ind.
Scott, Leonard Leonidas,	Agr.	Junior	West Liberty
Segovia, Desideria Montania,	Agr.	Freshman	San Jose, Paraguay
Seymour, Allen Hopewell,	Agr. S.	Second	Bainbridge
Sheets, Grace,	Dom. Sci. S.	First	Columbus
Sherman, Lewis Walter,	H. & F.	Sophomore	Bellevue
Shilling, Alice Myrtle,	Dom. Sci.	Freshman	Columbus
Shilling, Ida May,	Dom. Sci.	Sophomore	Troy
Sieg, Karl,	Agr. S	First	Ridgeway
Simmons, George Edward,	Agr.	Freshman	East Monroe
Smiley, Agnes Irene,	Dom. Sci.	Senior	Grove City
Smith, Clara,	Dom. Sci.	Freshman	West Unity
Smith, Clara Orton,	Dom. Sci.	Senior	Valley Crossing
Smith, Elma,	Dom. Sci.	Sophomore	Bethel
Smith, Marie,	Dom. Sci. S.	First	Felicity
Smith, Wilson,	Agr. S.	First	Loveland
Snodgrass, David Philips,	Agr.	Senior	Canonsburg, Pa.
Snyder, Charles Edwin,	Agr.	Junior	Monroeville
Staver, Camille,	Dom. Sci.	Senior	East Akron
Steiner, Ivan,	Agr.	Senior	Orrville
Stewart, Mary Alta,	Dom. Sci. S.	First	Cambridge
Stillwell, Bettina,	Dom. Sci. S.	First	Claremore, Okla.
Stoltz, Mabelle,	Dom. Sci.	Freshman	Gettysburg
Stowe, Stanley Blaine,	Agr.	Senior	Highland
Strong, Chester Sherman,	Agr. S.	First	McConnelsville
Sumner, Ray,	Dairy		Medina
Thacker, Alice Arnold,	B. A., Dom. Sci.	Special	Columbus
Thompson, Benjamin Lee,	Agr.	Senior	Jersey
Thompson, Homer Columbus,	H. & F.	Sophomore	Woodfield
Tobias, Luther J.,	H. & F.	Freshman	Covington
Trask, Ralph H.,	Dairy		Windsor
Tuller, Emily Butler,	Dom. Sci.	Freshman	Columbus
Underhill, Lewis J.,	Dairy		Salem, Mich.
Van Sickle, Inez Estelle,	Dom. Sci.	Sophomore	Columbus
Vaughan, Henry William,	Agr.	Senior	Columbus
Waddle, William Kenneth,	Agr.S.	First	Chillicothe
Walker, Ralph Reed,	Agr.	Special	Williamsburg
Ward, Orcutt Reed,	Agr. S.	First	Williamsfield
Watts, Herbert R.,	H. & F.	Sophomore	Columbus

Name.	*Course.*	*Rank.*	*Home Address.*
Weeber, Fred C.,	Agr. S.	First	Wapakoneta
West, Ada Clare,	Dom. Sci.	Senior	Columbus
West, William Greenfield,	Agr. S.	Second	North Fairfield
Wheaton, Albert,	Agr. S.	Second	Sidney
Whipps, Louise Grant,	Dom. Sci.	Senior	Columbus
White, Roy Smith,	Agr.	Freshman	Derby
Wilber, Robert Marshall,	Agr.	Junior	Marysville
Wilcox, Albert Stevenson,	Agr.	Freshman	Cleveland
Wildermuth, Vernon L.,	Agr.	Junior	Groveport
Williams, F. F.,	Dairy		Summit Station
Williams, John Oscar,	Agr.	Senior	Delphos
Williams, Walter G.,	Agr. S.	First	Greenwich
Woodard, Clarence Swanson,	Agr.	Senior	Jefferson
*Woods, Harold Edward,	Agr.	Senior	Crown Point, Ind.
Wright, Erskine Clark,	Agr.	Freshman	Columbus
Wright, Lawrence Good,	Agr.	Freshman	New Vienna
Wright, Robert Claude,	Agr.	Senior	Columbus
Wuichet, John Weller,	Agr.	Senior	Dayton
Yeager, William Glade,	Agr. S.	Special	Sprankle Mills, Pa.
Zimmer, James Francis,	H. & F.	Junior	Shepard
Zimmerman, Ernest Hess,	Agr. S.	First	Marshallville

COLLEGE OF ARTS, PHILOSOPHY, AND SCIENCE

GRADUATE SCHOOL

Name. — *Home Address.*

BAREIS, GRACE MARIE, B. A. (Heidelberg Univ.) . . Canal Winchester
Major—Mathematics.
Minor—Physics.

BARNES, ALFRED HENRY, M. E . . . . . Sandusky
Major—Physics.
Minor—Mathematics.

BEOSEL, ALBERT GEORGE, B. A . . . . . New Bremen
Major—American History.

BOORD, CECIL ERNEST, A. B. (Wabash College) . . Veedersburg, Ind.
Major—Chemistry.
Minor—Physics.

BOWLING, ALONZO JESSE, B. A. (Albion College) . . Adairville, Ky.
Major—Education.
Minor—Philosophy.

BROWNLEE, FRED LESLIE, B. A . . . . . Columbus
Major—Philosophy.
Minor—Psychology.

BULL, FLORENCE LOUISE, B. A. (Lake Erie College) . . . . . Columbus
Major—English.
Minor—French.

CHAMBERS, SHERMAN DANIEL, B. S. (Baldwin Univ.) . . West View
Major—Mathematics.

CLAYPOOLE, CHARLOTTE, B. Ph . . . . . Columbus
Major—Spanish.

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* Died February 10, 1908.

Name. *Home Address.*

COVERT, FLORENCE CECELIA, B. A. ..... Columbus
Major—Political Science.
Minor—English.

DURRANT, EDWIN POE, A. B. (Otterbein Univ.) ..... Westerville
Major—Zoology.

GATEWOOD, , B. A. ..... Clintonville
Major—Physiology.
Minor—Zoology.

GATEWOOD, LEE CONNEL, B. A. ..... Clintonville
Major—Physiology.
Minor—Zoology.

GREER, ALLEN JAMES, A. B., LL. B. (Univ. of Tennessee) .. Columbus
Major—American History.
Minor—European History.

GRIGGS, MRS. LAURA TRESSEL, B. A. ..... Columbus
Major—Astronomy.

HAGER, FRANK LLEWELLYN, B. A. (Univ. of Michigan) ... Dayton
Major—German.

HAMBLETON, JAMES CHASE, A. B. (Macalester College) ... Columbus
Major—Zoology.

HUTSINPILLAR, JESSIE, B. A. (Wellesley College) ..... Ironton
Major—English.
Minor—Sociology.

JACKSON, MRS. ALMA DRAYER, B. A. ..... Lafayette, Ind.
Major—Zoology.

JACKSON, CICERO FLOYD, A. B. (De Pauw Univ.) .. Lafayette, Ind.
Major—Zoology.

KAGEYAMA, CHIMAKI, B. A. (Waseda Univ.) ..... Shiznoka, Japan
Major—Psychology.
Minor—Philosophy.

KELLOGG, DAVID RAYMOND, B. S. (Rhode Island College) ....
Major—Chemistry. New London, Conn.

LE CRONE, HELEN, B. A. ..... Millersport
Major—English.
Minor—Education.

LEWIS, EDWARD RUST, B. A. ..... Columbus
Major—Philosophy.
Minor—Psychology.

LUCAS, HOWARD JOHNSON, B. A. ..... Columbus
Major—Chemistry.
Minor—Physics.

MCCLEERY, EDNA MAY, B. A. ..... Lancaster
Major—Botany.

MACGREGOR, JEANNETTE PORTER, B. A. ..... Grove City
Major—Sociology.
Minor—American History.

MARKS, MARY ESTHER, A. B. (Oberlin College) ... Wilton, Conn.
Major—English.

MORGAN, HELEN LOU, B. Ph. (Marietta College) ..... Marietta
Major—Chemistry.

MORGULIS, SERGIUS, A. M. (Columbia Univ.) ..... Balta, Russia
Major—Zoology.

MORRIS, AMOS RENO, B. A. ..... Carroll
Major—English.

Name. *Home Address.*

MORRIS, SAMUEL, B. A. ..... Bloomingburg
Major—Chemistry.
Minor—Geology.

MORSE, WILLIAM CLIFFORD, B. A. ..... Columbus
Major—Geology.

O'KANE, WALTER COLLINS, B. A. ..... Arlington
Major—Zoology.
Minor—Botany.

PARKER, JOHN BERNARD, A. M. ..... Danville
Major—Zoology.
Minor—Botany.

PLUM, HARLEY MARTIN, B. A. ..... Ashville
Major—Chemistry.

POLING, DANIEL A., B., A. M. A. (Dallas College) ..... Columbus
Major—Philosophy.

RANDALL, RITA, B. A. ..... Columbus
Major—English.

REEDER, CHARLES WELLS, B. A. ..... Columbus
Major—American History.
Minor—Economics.

RUPPERSBERG, EMMA A., B. Sc., M. Sc. ..... Columbus
Major—Physics.

SALE, JOHN WALTER, B. A. (DePauw Univ.) .... Marysville, Kansas
Major—Chemistry.

SCHORGER, ARLIE WILLIAM, B. A. (Wooster Univ.) ..... Tiffin
Major—Chemistry.
Minor—Metallurgy.

SEVERIN, HARRY CHARLES MAX, A. B. (Univ. of Wisconsin) ...
Major—Zoology. Milwaukee, Wis.
Minor—Botany.

SEVERIN, HENRY HERMAN PAUL, A. B., M. A. (Univ. of Wisconsin) ..... Milwaukee, Wis.
Major—Zoology.
Minor—Botany

SHEETS, BEATRICE, H., B. A. ..... Columbus
Major—Sociology.
Minor—Economics.

STRATTON, GEORGE WEATHERWORTH, B. A. (Univ. of Colorado)
Major—Chemistry. Cripple Creek, Col.

THOMAS, LAURA PARSONS, B. A. (Wellesley College) .... Columbus
Major—English.
Minor—Latin.

TRIMBLE, MARY LILLIAN, A. B. (Univ. of Illinois) .. Champaign, Ill.
Major—Bacteriology.

VOGT, CLARENCE CHARLES, A. B. (Wooster Univ.) ..... Zanesville
Major—Chemistry.

WAGENHALS, FRANKLIN CLARK, B. A. ..... Columbus
Major—Chemistry.
Minor—Psychology.

WITZEMANN, EDGAR JOHN, A. B. (James Millikin Univ.) .....
Major—Chemistry. Decatur, Ill.

WOLFE, CARRIE ELIZABETH, A. B. ..... Bainbridge
Major—Latin.
Minor—English.

WOZENCRAFT, WILLIAM OLIVER, B. A. ..... Columbus
Major—Philosophy.

UNDERGRADUATES

Name.	*Rank.*	*Home Address.*
Adams, John Charles,	Freshman	Coraopolis, Pa.
Adell, Claude,	Sophomore	Groveport
Adell, Gertrude,	Freshman	Groveport
Adler, Frederick H.,	Junior	Chicago, Ill.
Agler, Adelbert McMillen,	Freshman	Columbus
Akiyama, K.,	Freshman	Nagano, Japan
Albright, Alan Roth,	Junior	Columbus
Allen, Edgar Mosher,	Senior	Chillicothe
Allread, Harold Charles,	Freshman	Greenville
Altmaier, Oscar Charles,	Sophomore	Columbus
Amrine, John Abraham,	Special	Marble Cliff
Anthony, Alice Isabel,	Junior	Columbus
Arms, Louis Lee,	Special	Columbus
Asher, Mabel Mary,	Junior	London
Ashton, Mary Maud,	Freshman	Reynoldsburg
Atcheson, Fannie Marie,	Sophomore	Linden Heights
Atkinson, Agnes Jessie,	Freshman	Columbus
Augustus, Charles Grant,	Freshman	Springfield
Aylsworth, Nelle E.,	Freshman	Fostoria
Bacon, Hazel I.,	Senior	Columbus
Baird, Donald,	Senior	Canton
Baird, Gladys,	Freshman	Columbus
Bargar, Lucia Lee,	Freshman	Columbus
Barnhill, Eva A.,	Senior	Columbus
Barr, Jessie Errett,	Freshman	Brice
Barringer, Harrison Edward,	Freshman	Washington, D. C.
Bayha, Anna Eliza,	Sophomore	Wheeling, W. Va.
Beall, Lela Carmen,	Sophomore	Coshocton
Beck, Edwin Long,	Senior	Lithopolis
Beebe, Marjorie,	Freshman	Columbus
Bennett, William Vincent,	Freshman	Columbus
Bering, Edgar Andrew,	Sophomore	Cincinnati
Bice, Hubert E.,	Junior	Spencerville
Blake, William T.,	Special	East Liverpool
Blanchard, Forest Ira,	Freshman	Sidney
Boesel, Robert Carl,	Junior	New Bremen
Boesel, Steven W.,	Freshman	New Bremen
Bogardus, Herbert Lee,	Sophomore	Columbus
Booher, Claude Herbert,	Sophomore	Reedsburg
Bostwick, Valeria,	Junior	Columbus
Bouic, Fred Vernon,	Sophomore	Ostrander
Bower, Louis Floyd,	Freshman	Kingston
Boylan, Marguerite,	Junior	Columbus
Bradford, Grace Emma,	Senior	Columbus
Brady, Laura Augusta,	Freshman	Columbus
Brand, Elizabeth Flora,	Freshman	Columbus
Brand, Mary Lucille,	Freshman	Worthington
Braun, Bertha Elizabeth,	Freshman	Columbus
Breckbill, Anna Elizabeth,	Freshman	Columbus
Breese, Hazel Elizabeth	Sophomore	Columbus

Name.	*Rank.*	*Home Address.*
Briggs, Agnes Esther,	Freshman	Columbus
Briggs, Warren Milton,	Freshman	Portsmouth
Bright, Laura	Sophomore	Columbus
Brown, Jessie May,	Freshman	Columbus
Brown, Ruth Evelyn,	Freshman	Columbus
Bryant, Florence,	Freshman	Columbus
Buchanan, Thomas Edwin,	Freshman	Ripley
Bumgardner, Harry H.,	Sophomore	Lancaster
Burt, Russell Jeffords,	Junior	Columbus
Burton, Ella M.,	Sophomore	Columbus
Butcher, Clarence Bertran,	Special	Buckland
Bussert, Edgar C.,	Senior	Amanda
Butler, James Edgar,	Senior	Columbus
Byers, Ophelia Gertrude,	Senior	Columbus
Byers, Ruby Marie,	Freshman	Toledo
Campbell, Margaret,	Sophomore	Columbus
Capell, Mary Alice,	Junior	Columbus
Carothers, Frank K.,	Junior	Sidney
Carpenter, Frances,	Freshman,	Washington C. H.
Carr, Frank Clyde,	Sophomore	Dayton
Carroll, Alice Berry,	Freshman	Columbus
Carroll, Marie Josephine,	Junior	Columbus
Cartmell, Bessie,	Sophomore	Columbus
Cartzdafner, Robert James,	Freshman	Columbus
Chaffee, Abner Vernon,	Freshman	Columbus
Chamberlain, Florence M.,	Sophomore	Marion
Chambers, Mrs. Jennie,	Special	Columbus
Chase, Don Landenberg,	Junior	Ashland
Chavous, Arthur Melton,	Junior	Columbus
Chew, Kok Hean,	Freshman	Penang, Malay Pen.
Christmann, Julia Anna,	Freshman	Columbus
Chrysty, Dorne M.,	Sophomore	Pataskala
Clark, Clinton Willard,	Junior	Wapakoneta
Clark, Gideon Thomas, Jr.,	Freshman	London
Clark, Homer Clyde,	Special	Columbus
Clark, Hugh	Junior	Wapakoneta
Clark, Jacob Peetrey,	Sophomore	London
Clarke, Helen,	Junior	Columbus
Clarke, Ruth,	Sophomore	Columbus
Clawson, James F.,	Sophomore	Hamilton
Claypool, Carl Peters,	Senior	Lancaster
Clayton, Howard Dimock,	Freshman	Jennings, La.
Cline, Mamie Esther,	Freshman	Columbus
Clouse, Kenneth Atkinson,	Senior	Columbus
Coberly, Hazel Marie,	Senior	Georgesville
Cochrun, Otto Austin,	Sophomore	Columbus
Cole, Arnet B.,	Sophomore	Columbus
Colgan, Lillian Katharine,	Special	Columbus
Collins, Robert Willoughby,	Freshman	Columbus
Collison, Laura Gast,	Sophomore	Columbus
Condit, Daniel Dale,	Junior	Jersey
Connell, Margaret Rachel,	Sophomore	Shepard

Name.	*Rank.*	*Home Address.*
Connole, Anna,	Special	Columbus
Corbett, Mary Catherine,	Sophomore	Columbus
Corbin, Alma,	Sophomore	Columbus
Corkwell, Clarence Lister,	Junior	Mt. Sterling
Corwin, Hilda J.,	Sophomore	Columbus
Cowgill, Ruth Leonard,	Freshman	Columbus
Crabbe, Thyrza M.,	Sophomore	Mt. Sterling
Crane, Evan Jay,	Freshman	Columbus
Crawford, Nelle,	Freshman	Columbus
Crew, Kathleen,	Freshman	Chesterhill
Crooks, Clair L.,	Junior	Van Wert
Crooks, John E.,	Senior	Zanesville
Crow, Stanley Edwin,	Junior	Jacksontown
Culp, Willard B.,	Freshman	West Jefferson
Culter, Charles Edgar,	Freshman	Georgetown
Dagger, Golden Norman,	Sophomore	Urbana
Darnell, Katheryn,	Sophomore	Grove City
Dauber, Clara Mae,	Sophomore	Jackson
Daugherty, Nelle,	Freshman	Columbus
Davies, Gordon,	Junior	Columbus
Davis, Blanche,	Sophomore	Columbus
Davis, Clara Maude,	Sophomore	Columbus
Davis, Ernest Louis,	Freshman	Springfield
Davis, Mary Virginia,	Junior	Clintonville
Davis, Paul Arthur,	Freshman	Jackson
Davis, Ruth Louise,	Senior	Sag Harbor, L. I.
Deatrick, Nell Carolyn,	Freshman	Columbus
Deibel, Durus John,	Freshman	Columbus
DeMuth, Mabel Eva,	Junior	Columbus
DeNune, Ina Fern,	Junior	Linden Heights
DeVereaux, Nelle,	Sophomore	Mechanicsburg
Dick, Blanche M.,	Freshman	Celina
Dick, Ralph Heber,	Sophomore	Columbus
Dickey, Malcolm Gillespie,	Sophomore	Clintonville
Diegle, Claude R.,	Freshman	Sandusky
Domoney, Alice,	Sophomore	Columbus
Douglas, Sholto Moore,	Freshman	Waverly
Dumm, Leah Lentelle,	Freshman	Columbus
Dun, Carroll Thurman,	Freshman	Columbus
Dunn, Clara Belle,	Sophomore	Columbus
Dupre, William Kent,	Sophomore	Portsmouth
Durham, Elizabeth Louise,	Freshman	Columbus
Earl, Grace Tourje,	Senior	Columbus
Eastman, Harriet,	Sophomore	Columbus
Eckelberry, John Walter,	Senior	Richwood
Ehler, Harvey Franklin,	Sophomore	Eaton
Embry, Jessie Floyd,	Junior	Columbus
Evans, Thomas Clinton,	Freshman	Columbus
Evans, Elsie May,	Freshman	Columbus
Evans, Raymond Oscar,	Sophomore	Columbus
Evans, Robert Welsh,	Sophomore	Chillicothe
Evans, Ruth,	Freshman	Columbus

Name.	*Rank.*	*Home Address.*
Everett, Frank,	Sophomore	Columbus
Eylar, Melville,	Freshman	Waverly
Fair, Marguerite Emma,	Sophomore	Columbus
Farbach, Clifford Elmer,	Junior	Cincinnati
Farquhar, Leo J.,	Senior	Bucyrus
Fellows, Howard,	Freshman	Columbus
Ferguson, Henrietta Wilberte,	Junior	Columbus
Finley, Marion,	Freshman	Kenton
Flocken, Ira Graessle,	Junior	Mansfield
Flory, Alice,	Freshman	Cleveland
Fogle, Helen Margaret,	Freshman	Milo
Ford, Eva,	Senior	Columbus
Forman, Jonathan,	Sophomore	Madison
Fox, Mrs. Beatrice A.,	Special	Columbus
Fravel, Josa Floy,	Junior	Pataskala
Freeman, Bina Henrietta,	Freshman	Chillicothe
Fries, Harry A.,	Freshman	Bloomdale
Frost, Elizabeth,	Freshman	Columbus
Fuller, Deweese Hitt,	Sophomore	Urbana
Fulton, Adelaide M.,	Junior	Columbus
Gabriel, Irene,	Freshman	Milford Centre
Gallen, Francis Thomas,	Freshman	Columbus
Gallen, Helen,	Junior	Columbus
Garmhausen, Erwin John,	Freshman	New Bremen
Garvin, Charles Rabe,	Junior	Cumberland
Gheen, Olive,	Junior	Delta, Col.
Giesy, Paul Miller,	Sophomore	Columbus
Gilkey, Ethel Humes,	Freshman	Clintonville
Gilliam, Florence Edna,	Junior	Columbus
Gilpin, Mabel Elizabeth,	Freshman	Columbus
Gladfelter, Carl Stanley,	Freshman	Springfield
Gorman, Edwin W.,	Sophomore	Sharonville
Gothlin, Myrtle Jean,	Sophomore	Columbus
Gothlin, Margaret Louise,	Special	Columbus
Greener, Nelle Davis,	Sophomore	Columbus
Greiner, Corna Marguerite,	Sophomore	Columbus
Gress, Bertha Augusta,	Junior	Columbus
Grillo, Ambrosio A.,	Freshman	Santiago de Cuba
Grimes, Marie Louise,	Freshman	Dayton
Grimm, John Crawford,	Freshman	Columbus
Gromme, Irene,	Junior	Lancaster
Grosse, Simon,	Freshman	Madisonville
Grosvenor, Fred Browne,	Senior	Troy
Groves, Sadie Pearl,	Freshman	Shepard
Gwynne, Harold C.,	Sophomore	Wellsburg
Hadley, Harry Lawrence,	Freshman	Washington C. H.
Hadsell, Harry Irvin,	Senior	Columbus
Haig, Grace,	Freshman	Columbus
Haldy, Helen,	Freshman	Camp Chase
Hall, J. Swaney,	Freshman	East Liverpool
Hall, William Earl,	Freshman	Georgetown
Hamilton, Guy Anthony,	Sophomore	Collinwood

Name.	*Rank.*	*Home Address.*
Hamilton, Lucy,	Freshman	East Liberty
Hamilton, Paul Ibbotson,	Sophomore	Glenford
Hamilton, Victor H.,	Senior	East Liberty
Hammond, Howard Spurr,	Senior	Goshen, Conn.
Hanly, Lydia Winifred,	Junior	Columbus
Hanna, Stephen W.,	Freshman	Columbus
Hardesty, Adalene Helen,	Freshman	Columbus
Hardin, John Franklin,	Sophomore	Clintonville
Hare, Alice Daisy,	Special	Columbus
Harford, Frederick L.,	Senior	Springfield
Harlan, Louise,	Freshman	Columbus
Harmount, George Pryor,	Special	Columbus
Harr, Herbert Spencer,	Freshman	Hamilton
Haskett, Frank Hager,	Special	Marion
Hatch, Arline Calista,	French	Columbus
Hatton, Otis C.,	Sophomore	Marysville
Hayes, Anna Catherine,	Freshman	Columbus
Hayme, Ethel Marie,	Sophomore	Columbus
Hayme, Fred S.,	Sophomore	Columbus
Hedges, Hazel,	Freshman	Mansfield
Heller, Vernon Otis,	Junior	Lithopolis
Helms, Mary Harris,	Freshman	Steubenville
Herbst, Marguerite Elizabeth,	Freshman	Columbus
Hesse, Gail Lafayette,	Sophomore	Columbus
Hesse, George Ernest,	Sophomore	Columbus
Heston, Frank M.,	Senior	Pataskala
Hicks, Lenora,	Sophomore	Columbus
Hickson, Dean M.,	Sophomore	Ashley
Hightower, Henderson Grover,	Junior	Columbus
Hinckley, Martha Elizabeth,	Senior	Olena
Hixson, Alonzo Franklin,	Freshman	Columbus
Hixson, Grace Catherine,	Sophomore	Wellington
Hodges, Willis Holland,	Junior	Urbana
Hoffman, John Tom,	Junior	Lancaster
Hollingsworth, Marion,	Junior	Jamestown
Hollister, Emily Constance,	Senior	Galion
Hollister, Helen,	Sophomore	Galion
Holmes, Martha Camp,	Special	Unionville, Conn.
Holter, Anna Merle,	Sophomore	Columbus
Hoopes, Clarence A.,	Senior	Marysville
Hoover, Charles Potter,	Senior	Columbus
Hoover, Ethel May,	Senior	Grove City
Hoover, Stuart A.,	Junior	Columbus
Horst, Ada,	Freshman	Hilliards
Horst, Anita J.,	Freshman	Columbus
Horst, Bertha C.,	Freshman	Hilliards
Hooverder, Wallace Pemberton,	Special	Atco, N. J.
Howard, Homer Hildreth,	Junior	Mansfield
Howard, Olive Curtis,	Sophomore	Columbus
Howell, Wilbert Reed,	Junior	Gallipolis
Howells, William Cooper,	Special	Jefferson
Hoyman, Carey B.,	Freshman	Pemberville

Name.	*Rank.*	*Home Address.*
Huddleson, Ruth,	Freshman	Columbus
Hudgel, Florence Edith,	Freshman	Columbus
Hughes, Edith May,	Sophomore	Pataskala
Hughes, Edward Coslett,	Freshman	Columbus
Hughes, Henry T.,	Freshman	Columbus
Humphreys, Marie,	Freshman	Columbus
Hunt, Bertha,	Freshman	Mechanicsburg
Hunter, Junius,	Junior	Chillicothe
Hupman, William Paul,	Freshman	Xenia
Huston, Eleanor Clara,	Junior	Columbus
Huston, Florence L.,	Sophomore	Columbus
Hutchinson, James Elder,	Junior	Xenia
Hutsinpillar, Charles Cornelius,	Senior	Ironton
Hyde, Edith,	Senior	Lancaster
Hyde, Katybel,	Junior	Columbus
Inskeep, John Downs, Jr.,	Senior	Bellefontaine
Irish, Cullen Ward,	Freshman	Barberton
Irvine, Dorothy,	Freshman	Columbus
Jacobs, Phillip,	Freshman	Portsmouth
Janeway, Harold,	Sophomore	Columbus
Janeway, William Ralph,	Special	Columbus
Johnson, Leonard,	Freshman	Columbus
Johnston, Helen Irene,	Freshman	Grove City
Jones, Carrie Louise,	Sophomore	Columbus
Jones, Clarence Alexander,	Sophomore	Columbus
Jones, Ethel,	Sophomore	Columbus
Jones, Gladys Jeannette,	Freshman	Columbus
Jones, Thomas Hoyt,	Junior	Jackson
Kampmann, Marie Jeannette,	Freshman	Columbus
Karshner, Hazel Alice,	Freshman	Columbus
Kauffman, George Hughes,	Freshman	Columbus
Kellerman, Maude,	Sophomore	Columbus
Kellman, Sidney,	Sophomore	St. Michaels, W. I.
Kelso, Genevieve,	Sophomore	Clintonville
Kerr, Sara Amelia,	Senior	Columbus
Kershner, W. E.,	Special	Columbus
Kibler, Edward, Jr.,	Junior	Newark
Kidwell, Helen Louise,	Freshman	Columbus
Kientz, John Edward,	Sophomore	Glouster
Kile, Elton Merrill,	Sophomore	Kileville
Kile, Merton,	Freshman	Groveport
Kinkade, Alice,	Junior	Marysville
Kinsell, Marie,	Freshman	Arlington
Kirkpatrick, Donald,	Sophomore	Utica
Kitt, Jean Gertrude,	Freshman	Massillon
Kitzmiller, Harrison M.,	Sophomore	Columbus
Klinefelter, Theron Albert,	Senior	Dayton
Knauss, Myrtle Celia,	Senior	Marion
Koehler, Susanne M.,	Junior	Columbus
Koehne, Martha,	Senior	Columbus
Komminsk, Harry,	Freshman	New Bremen
Kroeck, Archibald Franklin,	Freshman	Youngstown

Name.	*Rank.*	*Home Address.*
Kropp, Alma,	Senior	Columbus
Lake, Charles H.,	Junior	Granville
Lantz, Homer B.,	Senior	Massillon
Laughead, Beatrice,	Freshman	Columbus
Laughlin, Leska Laura,	Special	Kincaid, Kan.
Lawrence, Gaines,	Freshman	Columbus
Lawrence, Genevieve Agnes,	Freshman	Rock Island, Ill.
Lawrence, James Cooper,	Sophomore	Columbus
Laylin, Robert Weyburn,	Senior	Columbus
Lecklider, Bertha,	Senior	Toledo
Leebrick, Robert John,	Freshman	Winona Lake, Ind.
Leib, Josephine May,	Freshman	Columbus
Leinbach, Lilly,	Freshman	Rossville, Ga.
Lemmon, Charles E.,	Freshman	East Liverpool
Lentz, Anna Belle,	Special	St. Clairsville
Lepley, Clothilda Belle,	Sophomore	Millwood
Lewis, Mrs. Maxie E.,	Special	Columbus
Lewis, Myrtle B.,	Sophomore	Columbus
Lichtenwalter, Earl E.,	Freshman	Smithville
Lippincott, Ruth,	Freshman	Columbus
Lisle, Marguerite,	Sophomore	Columbus
Loewel, Florence,	Freshman	Columbus
Loggans, Edward James,	Sophomore	Greenfield
Long, Margaret Adaline,	Sophomore	Mansfield
Loos, Ralph Bristor,	Freshman	Dennison
Loren, James Jr.,	Freshman	Columbus
Lorentz, William Nelson,	Freshman	Jeannette, Pa.
Lott, Helen Flowers,	Freshman	Columbus
Lovejoy, Mabel,	Junior	Columbus
Lowe, Jacob Henry,	Sophomore	Shelby
Luby, Walter F.,	Sophomore	Zanesville
Lutz, Mrs. Laura Cook,	Special	Columbus
McAuley, Ann,	Special	Columbus
McCarty, Leon B.,	Sophomore	Columbus
McCarty, Pearl Alphonso,	Sophomore	Mechanicsburg
McCauley, Ray W.,	Freshman	Hicksville
McClees, Helen,	Freshman	Columbus
McClees, Imogene,	Senior	Columbus
McCombs, Charles Flowers,	Junior	Columbus
McCoy, Charles Jesse,	Freshman	Washington C. H.
McCune, Charles Nathaniel,	Sophomore	Plainfield
McCurdy, Frank T.,	Freshman	Marysville
McDonald, John Jacob,	Special	Worthington
McElfresh, Florence,	Special	Columbus
McGill, Don R.,	Freshman	Nelsonville
McMullen, John Pearce,	Freshman	Hillsboro
McMullen, Robert Beecher,	Freshman	Hillsboro
McNeal, Isabel,	Special	Chicago, Ill.
MacDonald, Annie Leslie,	Freshman	Columbus
Mackall, Helen,	Junior	Barnesville
Mackey, Frank Clark,	Sophomore	Cambridge
Maclean, Flora Evelyn,	Sophomore	Columbus

Name.	*Rank.*	*Home Address.*
Maclean, Margaret,	Senior	Columbus
Mahaffey, Vernon Erwin,	Sophomore	Manchester
Maize, Georgia Grube,	Freshman	Columbus
Maize, William Gifford,	Sophomore	Columbus
Makepeace, George D.,	Senior	Columbus
Makepeace, Mary Virginia,	Junior	Columbus
March, Perrin George, Jr.	Sophomore	Fern Bank
Markeson, Helen Gilpin,	Freshman	Columbus
Markeson, Mary,	Junior	Columbus
Marsh, Frederick Albert,	Sophomore	Nelsonville
Maxwell, Ralph Edgar,	Sophomore	Columbus
Mayer, Earl Daniel,	Freshman	Columbus
Menefee, Augusta I.,	Freshman	Columbus
Menefee, Ona,	Freshman	Columbus
Merion, Grace Nanette,	Senior	Columbus
Metcalf, Clell Lee,	Freshman	Plimpton
Metzger, Mrs. Ada,	Special	Columbus
Middleton, George Staten,	Sophomore	Urbana
Miles, Clara,	Junior	Columbus
Miller, B. Frank,	Senior	Urbana
Miller, Clyde Raymond,	Freshman	Columbus
Miller, Charles Stanley,	Freshman	Dublin
Miller, Edgar Allan,	Freshman	Pataskala
Miller, Hilda,	Senior	Galion
Miller, Perry C.,	Junior	Sidney
Mills, Inez Edna,	Freshman	Columbus
Mitchell, Edith Adeline,	Senior	Columbus
Mitchel, Elinor Brown,	Freshman	Columbus
Moelchert, Chester Colvin,	Freshman	Columbus
Monett, Howard B.,	Sophomore	Columbus
Moore, Elizabeth Minnie,	Junior	Columbus
Moore, Guy,	Freshman	Columbus
Moore, Mabel M.,	Freshman	Columbus
Moore, Nellie Pearle,	Sophomore	Columbus
Morheart, Cleveland,	Senior	Lancaster
Morningstar, Charlotte,	Freshman	Columbus
Morris, Alice Louise,	Junior	Columbus
Morton, Cora,	Senior	Norwood
Mossman, Paul,	Sophomore	Columbus
Moynan, Muriel,	Freshman	Columbus
Muchnick, George,	Sophomore	New York City
Mulligan, Gladys,	Freshman	Columbus
Murphy, Lura Mae,	Senior	Bainbridge
Murray, Frank James,	Senior	London
Nash, Mary Josephine,	Sophomore	Columbus
Neeb, George Frederick,	Junior	Dayton
Neiswender, Leah Grant,	Special	Grove City
Nelson, Leo Raymond,	Junior	Columbus
Newlove, Clara Inman,	Sophomore	Columbus
Newlove, Florence Almeda,	Junior	Columbus
Newton, Elsie Jennie,	Freshman	Dayton
Nichol, Raleigh Brown,	Special	Columbus

Name.	*Rank.*	*Home Address.*
Nichols, Rell Hunt,	Freshman	Etna
Nichols, Rowena,	Freshman	Chillicothe
Noble, Louise,	Freshman	Columbus
Nusbaum, Christian,	Senior	Columbus Grove
O'Brien, Harry Russell,	Sophomore	Union
O'Connor, Florence Langford,	Sophomore	Columbus
O'Kane, Elizabeth,	Senior	Columbus
Oppenheimer, Russell H.,	Freshman	Fremont
Orr, Laura Corinne,	Freshman	Wellsville
Ortego, Julio César,	Junior	Santo Domingo
Osborn, Evelyn,	Freshman	Columbus
Osborn, Herbert Tirrill,	Junior	Columbus
Osborn, Morse Foster,	Junior	Columbus
Osborn, Owen Gray,	Freshman	Jacksontown
Osborne, Florence,	Sophomore	Columbus
Osbourne, Inez,	Junior	Baltimore
Paine, Mrs. Delia J.,	Special	Columbus
Parkinson, George Edward,	Freshman	Columbus
Payne, Althea Alice,	Senior	Columbus
Pence, Paul Woodbury,	Junior	Urbana
Per Dine, Jean Ernona,	Sophomore	Columbus
Pettit, Claude Westcoat,	Freshman	Logan
Phelps, Frank Mills,	Sophomore	Elyria
Pierson, Egbert Heber,	Freshman	Painesville
Plueddemann, Dora,	Senior	Columbus
Pollock, James Arthur,	Senior	Waterville
Postle, Ruth Ella,	Senior	Columbus
Powell, Frederick F.,	Junior	Columbus
Price, Clara F.,	Special	North Fairfield
Price, Olive Edna,	Junior	Norwalk
Prior, Freeman Erle,	Special	Columbus
Probst, Mary Lukens,	Freshman	Columbus
Pruner, Harry Paul,	Senior	Dayton
Rainey, Cecil Du Bois,	Junior	Mansfield
Ramsey, Janet Theodosia,	Freshman	Columbus
Ramsey, Raymond,	Senior	Columbus
Randall, Cecil Jay,	Junior	Columbus
Rathbun, Mabel B.,	Freshman	Columbus
Raudabaugh, Sada,	Freshman	Celina
Raynor, Earl Clemans,	Freshman	Xenia
Reigart, Harry Russell,	Sophomore	Hamilton
Renz, Emilie Catherine,	Sophomore	Columbus
Rhoades, Howard Philip,	Special	Columbus
Rhoades, Rachel,	Sophomore	Columbus
Richey, William A.,	Sophomore	Van Wert
Richmond, Louise,	Freshman	London
Riddle, Eloise Hall,	Sophomore	Columbus
Ridenour, Walter Emlin,	Freshman	Lima
Rietz, Charles,	Senior	Newcomerstown
Riker, Benjamin H.,	Freshman	St. Paris
Rinehart, Helen E.,	Sophomore	Toledo
Robbins, James Martin,	Freshman	Jackson

Name.	*Rank.*	*Home Address.*
*Rogatzky, Mabel Grace,	Junior	Columbus
Rogers, Grace,	Sophomore	Columbus
Rogers, Lucile	Freshman	Hilliard
Rose, Curtis Lynn,	Sophomore	Duvall
Rower, Alice, B. S.,	Senior	Ft. Jennings
Rower, Emma Elizabeth,	Sophomore	Ft. Jennings
Rowland, Florence,	Freshman	London
Ruble, Myrtle Miriam,	Senior	Columbus
Ruecker, August,	Special	Columbus
Runkle, Harry Maize,	Freshman	Columbus
Runyan, Nelle Frances,	Freshman	Columbus
Russell, Morrisson Waite,	Special	Ironton
Ryerson, Agnes,	Sophomore	Columbus
Saffin, Charles Guy, Jr.,	Sophomore	Columbus
Schaare, Amelia Elizabeth,	Freshman	Columbus
Schenck, Earl Oscar,	Freshman	Columbus
Schlesinger, Arthur Meier,	Sophomore	Xenia
Schneider, Marie L.,	Sophomore	Columbus
Schwartz, Alice Grace,	Sophomore	Columbus
Scott, Helen,	Sophomore	Worthington
Sedgwick, Chester C.,	Sophomore	Martin's Ferry
Seeley, Grace Langdon,	Freshman	Columbus
Seidel, John F.,	Senior	Bowers Station, Pa.
Selby, Raymond,	Freshman	Utica
Selby, Warren Fowke,	Junior	Wooster
Selegue, Inez,	Freshman	Akron
Sells, Stanley Needels,	Freshman	Columbus
Shannon, Anna M.,	Junior	Columbus
Shaw, A. Vere,	Junior	Mansfield
Shaw, Walter Rasner,	Senior	Springfield
Sheets, Olive Amy,	Senior	Columbus
Shepherd, Louise,	Sophomore	Columbus
Sherick, Clyde Cea,	Senior	Ashland
Sheridan, George Van Ness,	Freshman	Marysville
Sherman, Mapel Dell,	Freshman	Columbus
Sherman, Myra Ann,	Junior	Columbus
Shields, Mary Mayhew,	Freshman	Columbus
Shields, Mayhew Wing,	Sophomore	Columbus
Shira, Austin F.,	Freshman	La Rue
Shoop, Besse,	Freshman	Washington C. H.
Shrader, James Edmond,	Sophomore	Columbus
Shuler, Frank Berger,	Senior	Hamilton
Silbaugh, Mary,	Freshman	Lancaster
Silver, Benjamin Stokes,	Sophomore	Waynesville
Sim, Robert James,	Special	Jefferson
Singleton, Elizabeth,	Freshman	Columbus
Smith, Arthur L.,	Junior	Valley Crossing
Smith, Charles Alan,	Junior	Columbus
Smith, Harley Wright,	Freshman	Worthington
Smith, Helen Bertram,	Special	Columbus

* Died April 9, 1908.

Name.	*Rank.*	*Home Address.*
Smith, Kathryn,	Freshman	Columbus
Smith, Mary Bell,	Sophomore	Columbus
Smith, Muriel,	Sophomore	Columbus
Smith, Percy Monroe,	Sophomore	Unionville
Smythe, Katharine Roy,	Freshman	Columbus
Snyder, Ethel,	Freshman	Columbus
Somerville, Madge Louise,	Sophomore	Toledo
Spencer, Helen Marie,	Freshman	Columbus
Sprague, Martin Nelson,	Freshman	Lima
Sproat, Samuel McCoy,	Freshman	Chillicothe
Steele, Hariel,	Sophomore	Los Angeles, Cal.
Steube, Margaret Gebhardt,	Sophomore	Columbus
Stevens, Cornelia Agnes,	Junior	Columbus
Stewart, Grace,	Senior	Newark
Stewart, Samuel,	Freshman	Ridgeway
Stiffey, Mabel Rebecca,	Freshman	Columbus
Stitt, Helen Louise,	Sophomore	Columbus
Stocklin, Minnie Lillian,	Sophomore	Columbus
Stone, Rose,	Freshman	Columbus
Stuber, Mildred Day,	Sophomore	Columbus
Stukey, Frank Hamilton,	Freshman	Lancaster
Sullivan, Ella Gertrude,	Special	Columbus
Sullivan, Margaret Mary,	Sophomore	Columbus
Summers, Merle Greely,	Freshman	West Jefferson
Sutherland, James Charles,	Sophomore	Frankfort
Swift, Rose Agnes,	Junior	Columbus
Taft, Lawrence Ritson,	Freshman	Columbus
Taggart, Harold Isaac,	Freshman	Massillon
Talbott, Dean,	Sophomore	Galion
Tao, Daqueen,	Junior	Hupeh, China
Tavenner, Robert L.,	Senior	Springfield
Taylor, Charles Fletcher,	Sophomore	Columbus
Taylor, Dorothea,	Sophomore	Shepard
Taylor, Henry De Hoss,	Junior	Columbus
Taylor, Marie Isabelle,	Special	Columbus
Taylor, Volney S.,	Sophomore	Rarden
Teegarden, Rolland Elston,	Freshman	Greenville
Thatcher, Harvey S.,	Junior	Utica
Theobald, Ottilie,	Freshman	Columbus
Thomas, Lily May,	Sophomore	Columbus
Thome, Grace,	Junior	Columbus
Thompson, Columbia,	Senior	Caldwell
Thompson, Nelle,	Freshman	Coshocton
Thone, Marie N.,	Freshman	Columbus
Thurston, Norton,	Special	Grand Rapids
Tilden, Francis F.,	Sophomore	Ansonia
Tingley, Herman R.,	Freshman	Columbus
Tinker, Arthur W.,	Sophomore	Columbus
Tinsley, Benjamin Rogue,	Sophomore	Covington, Ky.
Torrosian, Gregory,	Sophomore	Artuin, Russia
Tracht, Claren E.,	Freshman	Hicksville
Tressel, Nettie Evelyn,	Junior	Columbus

Name.	*Rank.*	*Home Address.*
Truckmiller, Dorcas,	Freshman	Columbus
Tuller, Urith Marie,	Junior	Columbus
Tussing, Wendell B.,	Freshman	Groveport
Tway, Elsa,	Sophomore	Washington C. H.
Uthoff, Ralph Henry,	Special	Genoa
Valentine, Mabel Searls,	Freshman	Columbus
Vallance, Harvard Forrest,	Senior	Columbus
Van Sickle, Guy E.,	Junior	Columbus
Von Blon, Philip A.,	Freshman	Upper Sandusky
Vordermark, William E.,	Sophomore	New Knoxville
Walter, Frances Cameron,	Junior	Columbus
Walworth, Charles Herbert,	Junior	Williamsfield
Washburn, Carl DeWitt,	Freshman	Columbus
Waters, Harriet L.,	Freshman	Lancaster
Watson, Christine Dyer,	Special	Columbus
Watson, Stanley Henry,	Special	Thurston
Webster, Florence Evelyn,	Freshman	Columbus
Weckesser, Elizabeth,	Senior	Marshallville
Weeks, Guy Cranston,	Special	Dayton
Weidman, Walter B.,	Freshman	Chillicothe
Weiser, Harry Boyer,	Freshman	Carroll
Weist, Oliver Clyde,	Junior	Basil
Weisz, Florence Marie,	Freshman	Columbus
Wellman, Henry G.,	Freshman	New Knoxville
Wells, Bertram Whittier,	Special	Toledo
Wenrich, Rufus,	Freshman	Robesonia, Pa.
Werner, Roy G.,	Junior	Mt. Sterling
Wertheim, Roy Jacob,	Junior	Findlay
Werum, Clarence,	Junior	Columbus
West, Carl J.,	Senior	Martinsville
Weyman, Vera Lucile,	Sophomore	Painesville
Whims, Edith Marie,	Junior	Columbus
Whims, Letta May,	Junior	Columbus
White, Clyde Wayland,	Sophomore	Hilliards
White, Nicholas Gill,	Freshman	Kirkersville
Wieland, Merton,	Sophomore	Sandusky
Wilcox, Margaret,	Senior	Columbus
Wilkins, Ivan Luro,	Sophomore	Columbus
Wilkinson, Anna,	Special	Columbus
Will, Alpha J.,	Special	Toledo
Will, Harry Sylvester,	Sophomore,	Toledo
Williams, Benjamin Harrison,	Sophomore	Columbus
Williams, Edith,	Junior	Lockbourne
Williams, George Reneker,	Sophomore	Dennison
Williams, Lee,	Freshman	Coshocton
Williams, Marguerite,	Freshman	Columbus
Williamson, Francis Orrin,	Junior	Lancaster
Wilson, Halbert M.,	Junior	Barnesville
Wilson, Lydia Jackson,	Senior	Columbus
Wilson, Margaret Elizabeth,	Senior	Columbus
Wilson, Ralph Byron,	Senior	Columbus
Wilson, Ruth Oleta,	Junior	Columbus

Name.	*Rank.*	*Home Address.*
Winwood, George M., Jr.,	Sophomore	Springfield
Withrow, Albert William,	Freshman	Philadelphia, Pa.
Wittenmyer, James Graham,	Junior	Peebles
Wolcott, Helen W.,	Special	Columbus
Wolf, Ida Liona,	Special	Columbus
Wood, Nellie Eagle,	Freshman	Columbus
Woodbury, Bonnie Marie,	Sophomore	Columbus
Woodbury, Howard Perry,	Senior	Columbus
Yoh, Harry B.,	Sophomore	Van Wert
Zehring, Earl Aaron,	Senior	Germantown

COLLEGE OF EDUCATION

Name.	*Rank.*	*Home Address.*
Armstrong, Edna,	Special	Columbus
Ashbrook, Anna,	Special	Milo
Boving, Antonia,	Sophomore	Carroll
Bown, Ethel Adelle,	Junior	Columbus
Cook, Edith Grayce,	Special	Ravenna
Danenhower, Dorothy,	Special	Columbus
Davis, Ruth Louise,	Senior	Sag Harbor, L. I.
Gilkey, Helen,	Special	Columbus
Guillard, Rene,	Special	Wells Tannery, Pa.
Kindlespire, Peter W.,	Special	Spencer, Iowa
Kolb, Edgar A.,	Graduate Special	Columbus
Laizure, Grant Arlington,	Senior	Dennison
Lantis, Lee Ora, B. A.,	Graduate Special	Columbus
Leonard, Thomas F.,	Junior	Mt. Sterling
McKinney, Mary Eula, B. A.,	Special	Columbus
Maetzel, Clara,	Special	Columbus
Morton, Cora,	Senior	Norwood
Oman, Roy Hedges,	Senior	Ashville
Parker, Nellie M.,	Freshman	Columbus
Rawie, Gerda Katrina,	Junior	Columbus
Scheiderer, Augusta,	Special	Marysville
Scott, Carolyn,	Special	Columbus
Singleton, Anna,	Junior	Columbus
Smiley, Grace Florence,	Sophomore	Columbus
Swickard, Olive Evangeline,	Junior	Columbus
Wood, Mrs. Rachel B.,	Special	Richville, Minn.

COLLEGE OF ENGINEERING

Name.	*Course.*	*Rank.*	*Home Address.*
Abbott, Willard Pemberton,	C. E.	Junior	Bethel
Adams, Ray P.,	I. A. Short	First	Cleveland
Agner, Frank Orsone,	E. E.	Junior	Columbus
Agner, Owen B.,	M. E.	Junior	Columbus
Albery, Duane Faxon,	Cer.	Junior	Columbus
Albing, Henry William,	Engr.	Freshman	Buffalo
Albrecht, Herman J.,	Arch.	Senior	Massillon
Albright, Arthur S.,	E. E.	Sophomore	Milwaukee, Wis.
Alderman, Edwin Earle,	Engr.	Freshman	Dayton
Aler, Lester Charles,	E. M.	Sophomore	Columbus
Alexander, Howard,	Cer. Short	First	Rushsylvania
Alexander, Paul Edwin,	C. E.	Junior	Toledo
Allen, Harry Gilliam,	Arch.	Sophomore	Columbus
Allen, Harry Preston,	E. M.	Sophomore	Painesville
Allen, Lee Emel,	Engr.	Freshman	Lowellville
Alsdorf, George William,	Engr.	Freshman	Utica
Alspach, Erle Bourner,	E. E.	Sophomore	Newark
Altstetter, George Jacob,	E. M.	Senior	Lima
Ammon, Frank Ellsworth,	Engr.	Freshman	Lewistown, Pa.
Anderson, Edward Monroe,	C. E.	Sophomore	Bellaire
Anderson, Frank Joseph,	E. M.	Senior	Mt. Vernon
Andrews, Adelbert E.,	M. E.	Junior	Cleveland
Andrews, Herbert Nelson,	Engr.	Freshman	Youngstown
Arbogust, Charles Oren,	Cer.	Junior	Xenia
Arms, George Lyman,	M. E.	Sophomore	Columbus
Arnold, George A.,	E. E.	Sophomore	West Unity
Arthur, Glenn,	Engr.	Freshman	New Vienna
Artz, William H.,	Cer.	Senior	Dayton
Atkinson, Harry Victor,	Engr.	Freshman	Van Wert
Atkinson, Herbert Spencer,	Engr.	Freshman	Fremont
Augustus, Charles Grant,	Engr.	Freshman	Springfield
Austin, Robert Oliver,	Engr.	Special	Columbus
Avisado, Pastor,	M. E.	Junior	Vigan, P. I.
Ayres, Raymond,	Engr.	Freshman	Columbus
Backman, Stanley George,	Engr.	Freshman	Cincinnati
Badger, Charles Lucas,	Engr.	Freshman	Columbus
Bailey, George Mascot,	E. E.	Special	Madisonville, Ky.
Bailey, Hazel Harding,	M. E.	Sophomore	Beloit
Bailey, Russell Thomas,	C. E.	Sophomore	Dayton
Bailey, William Jesse,	M. E.	Junior	Damascus
Baldwin, Mason Leroy,	Engr.	Freshman	Marysville
Balph, Harold Russell,	Engr.	Freshman	New Castle, Pa.
Balyeat, Forrest,	E. E.	Junior	Van Wert
Banks, Thomas Dent,	E. E.	Junior	Newcomerstown
Barr, Dean,	Engr.	Freshman	Batavia
Barrett, Herbert Lawrence,	Arch.	Sophomore	Springfield
Barrett, William Mitchell,	Engr.	Freshman	Hillsboro
Barrington, Walter Davies,	E. M.	Junior	Columbus
Barry, Richard,	Engr.	Freshman	Chicago, Ill.

Name.	*Course.*	*Rank.*	*Home Address.*
Barstow, Eugene Duston,	Engr.	Freshman	Bryan
Bascom, Philip P.,	Engr.	Freshman	Lockwood
Bascom, Reynolds Ralph,	Engr.	Freshman	Greensburg
Baughman, Ray L.,	E. E.	Junior	La Rue
Beardsley, Henry Edward,	C. E.	Sophomore	Hamilton
Beaver, Austin Benjamin,	Engr.	Freshman	Columbus
Bechberger, Earl Herbert,	Engr.	Freshman	Norwalk
Beckwith, Carl Fonner,	Cer.	Sophomore	Columbus
Beebe, Philip Sidney,	Chem.	Junior	Columbus
Beery, Brooks,	Engr.	Freshman	London
Bell, Harry L.,	Engr.	Freshman	Bradford
Bell, Howard Fred,	C. E.	Junior	Windsor
Bell, Howard Hinsdale,	E. E.	Sophomore	Columbus
Benedum, John,	Engr.	Freshman	Leesville
Benham, Eugene Thirlestane,	Engr.	Freshman	Columbus
Bennett, George Edmund,	Engr.	Freshman	Grand Rapids, Mich.
Bennett, William Harry,	E. M.	Senior	Columbus
Benninghofen, Mark,	M. E.	Junior	Hamilton
Benton, Alva H.,	Engr.	Freshman	Columbus
Berlen, Fred M.,	C. E.	Junior	Columbus
Berry, Thomas Edward,	Engr.	Freshman	Hillsboro
Beucler, Bert,	C. E.	Sophomore	Stryker
Biggert, Faber,	E. E.	Sophomore	West Jefferson
Bischoff, Joseph Trony	Engr.	Freshman	Cleveland
Blackburn, Joseph Ellis,	Cer. Sh't	First	Columbus
Blickensderfer, Frank C.,	Engr.	Freshman	Canal Dover
Bliven, Charles Edgar,	M. E.	Junior	Columbus
Blosser, Emet Chandler,	C. E.	Senior	Bantam
Blosser, Rolland Ernest,	E. M.	Junior	Bantam
Bolton, Harry R.,	C. E.	Sophomore	Findlay
Bond, Allen,	E. E.	Junior	Dayton
Bone, Hugh M.,	M. E.	Sophomore	Columbus
Bonnet, Edwin S.,	E. M.	Junior	Columbus
Bonnet, Frank Henry,	M. E.	Junior	Columbus
Booher, Warren,	C. E.	Senior	Dayton
Booth, William Kurtz,	C. E.	Junior	Columbus
Born, Dennis Russell,	C. E.	Sophomore	Gnadenhutten
Bornhorst, August Henry,	E. E.	Sophomore	St. Marys
Bossert, Carl D.,	C. E.	Senior	Washingtonville
Bosworth, Rhey Codding,	Engr.	Special	Manly, Iowa
Bottman, Otmar,	Engr.	Freshman	Columbus
Bowman, Millard Kellerman,	C.E.	Junior	Columbus
Boyer, Frederick G. L.	Engr.	Freshman	Dayton
Bradshaw, Charles Oakley,	M. E.	Sophomore	Columbus
Branch, Harry C.,	Engr.	Freshman	Cleveland
Brand, Otto Albert,	C. E.	Sophomore	Findlay
Brashear, George,	Engr.	Freshman	Columbus
Bray, Archie,	Engr.	Freshman	Helena, Montana
Brice, Fred H., Jr.,	Engr.	Freshman	East Cleveland
Briggs, Robert Eugene,	M. E.	Sophomore	Columbus
Brightman, Howard Latham,	M.E.	Sophomore	Shelby

Name.	*Course.*	*Rank.*	*Home Address.*
Brightman, Joseph Herbert,	M. E.	Sophomore	Shelby
Brightman, Morton Harrison,	M. E.	Sophomore	Shelby
Briner, Cletus V.,	Engr.	Freshman	Shelby
Brinker, Harry Weaver,	Engr.	Freshman	Ashville
Bristow, William Grover,	Engr.	Freshman	Mansfield
Broenstrup, Howard Victor,	Engr.	Freshman	Dayton
Brown, George H.,	Cer.	Senior	Covington
Brown, Harvey Foreman,	C. E.	Sophomore	Toronto
Brown, Ralph D.,	C. E.	Sophomore	Oxford
Brown, Roy Atkinson,	E. E.	Sophomore	Cleveland
Brown, Raymond G.,	C. E.	Junior	Washington C. H.
Bruce, Alexander Wallace,	C. E.	Sophomore	Wooster
Brumbaugh, Clark,	C. E.	Junior	Canton
Brunner, Fred'k Raymond,	C. E.	Sophomore	Columbus
Bryce, Chalmers Kendall,	Cer.	Junior	Columbus
Bucher, Claude Victor,	C. E.	Senior	Columbus
Buck, Orson Wayne,	Engr.	Freshman	Columbus
Bumgardner, Karl John,	Engr.	Freshman	Lancaster
Burkey, Joseph Raymond,	C. E.	Senior	Lancaster
Burkland, Herman Walter,	M. E.	Sophomore	Jefferson
Burkley, Clem Joseph,	Engr.	Freshman	Columbus
Bush, Kent Grant,	Engr.	Freshman	Ancho, N. Mex.
Bushnell, Warner,	E. M.	Sophomore	Mansfield
Butler, William James,	E. E.	Sophomore	Columbus
Calderwood, James Park,	M. E.	Senior	Middleport
Caldwell, Don Starr,	Engr.	Freshman	Bryan
Calland, O. Glen,	E. E.	Junior	Bellefontaine
Caris, Ivan Burdell,	M. E.	Sophomore	Cardington
Carpenter, Harry Gillies,	E. M.	Sophomore	Ballarat Aus.
Carr, Charles Vincent,	E. E.	Sophomore	Sugar Grove
Case, William T.,	C. E.	Sophomore	Poland
Cave, Harry Edgar,	M. E.	Sophomore	Mansfield
Caywood, Homer G.,	Engr.	Freshman	Somerset
Chamberlin, Harold,	M. E.	Sophomore	Dayton
Chambers, Melvin Edward,	E. E.	Sophomore	Columbus
Cheney, Merritt Brooke,	Cer.	Junior	Mechanicsburg
Chenowith, Leon,	C. E.	Senior	Plattsburg
Chester, Walter D.,	Arch.	Junior	Rome
Child, James Leo,	Cer. Short	Second	Findlay
Claflin, Walter Neville,	Cer.	Junior	Cleveland
Clagett, Edward Franklin,	C. E.	Senior	Dayton
Clawson, Walter Harrison,	Engr.	Freshman	Eaton
Clingman, Charles Harvey,	M. E.	Special	Dayton
Close, Walter E.,	E. E.	Sophomore	Shelby
Clow, George Valentine,	C. E.	Senior	Columbus
Coblentz, Ralph W.,	Engr.	Freshman	Dayton
Cochran, Rae Eugene,	M. E.	Sophomore	Columbus
Coddington, Edw. Foster,	Engr.	Special	Columbus
Coe, Harry Dean,	C. E.	Senior	Columbus
Coe, John Henry,	Cer.	Junior	Columbus Grove
Cole, Bruce Albert,	I. A. Short	First	New Comerstown

Name.	*Course.*	*Rank.*	*Home Address.*
Coles, Henry LeRoy,	Engr.	Freshman	Springfield
Collins, Charles James,	Engr.	Freshman	Columbus
Colwell, Donald Stewart,	Engr.	Freshman	Urbana
Conard, Donald Reed,	Engr.	Freshman	Centerburg
Congdon, Carl E.,	Engr.	Freshman	Dayton
Connor, Charles Ed,	Engr.	Freshman	Columbus
Conradt, Theodore Julius,	Engr.	Freshman	Montrose, Iowa
Converse, Daniel Walker,	Engr.	Freshman	Plain City
Cook, Rossel Loret,	C. E.	Sophomore	Bellefontaine
Cookson, Alfred Burl,	Engr.	Freshman	Roseville
Cooley, George H.,	Engr.	Freshman	Niagara Falls, N.Y.
Cooper, Roy C.,	Cer.	Sophomore	Pomeroy
Cortleyou, Carl Walling,	M. E.	Sophomore	Jefferson
Cosgray, Mark Constant,	E. E.	Sophomore	Carey
Cosgrove, Jacob Ambrose,	Min. Short	First	Frostburg, Md.
Cosgrove, Karl M.,	Engr.	Freshman	Cambridge
Coulter, Allan Stanley,	Cer. Short	Second	Columbus
Court, Clyde Claude,	Engr.	Freshman	Marion
Covan, Harry,	Cer. Short	Second	Columbus
Cowgill, Henry Allison,	E. E.	Senior	North Lewisburg
Cowgill, Paul Everett,	M. E.	Sophomore	Columbus
Cox, George William,	C. E.	Junior	Trinway
Cox, Merlin Lee,	E. E.	Sophomore	Columbus
Cozad, Samuel Carver,	M. E.	Sophomore	Harlansburg, Pa.
Cragg, Shirley R.,	E. M.	Junior	Mount Healthy
Craig, Ora J.,	C. E.	Sophomore	Greenville
Crawford, Harry G.,	E. E.	Sophomore	Shelby
Crew, Joshua,	E. M.	Sophomore	Zanesville
Croswell, Harry Vergil,	E. M.	Senior	Homervsille
Crouch, Robert Eugene,	Engr.	Freshman	Newark
Crow, Charles Adna,	E. E.	Junior	Xenia
Crow, Earl Hezekiah,	Engr.	Freshman	Xenia
Crowe, Homer Francis,	Min Sh't	Second	Columbus
Culler, William Marion,	E. E.	Junior	Lucas
Cunningham, Fredonia Nixon,	E. E.	Sophomore	Steubenville
Curtis, Guy Alonzo,	M. E.	Sophomore	Cleveland
Cusic, Howard Lupton,	I. A. Sh't	Second	Martin's Ferry
Davis, Daniel E.,	C. E.	Senior	Columbus
Davis, Forrest William	Engr.	Freshman	Bryan
Davis, George Elliott,	Cer.	Sophomore	Cleveland
Dean, Charles Augustus,	Engr.	Freshman	Waverly
Degner, Clarence Andrew,	I. A.S't	First	Perrysburg
Denmead, Walter Angus,	Cer.	Sophomore	Columbus
Dennis, Basil Wrenn,	M. E.	Senior	Columbus
De Pramatha, Nath,	Engr.	Freshman	Bhatera, India
Dewey, Charles,	Arch.	Junior	Blanchester
Di Cio, Alfredo Alberto,	Engr.	Freshman	Concordia, A. R.
Dick, Karl Wilhelm,	M. E.	Senior	New Philadelphia
Diehl, Philip Harry,	Engr.	Freshman	Springfield
Dike, Ernest Reece,	E. E.	Senior	Delaware

Name.	*Course.*	*Rank.*	*Home Address.*
Dill, Stanley Earl,	C. E.	Sophomore	Pemberton
Dillahunt, George W.,	Engr.	Freshman	Springfield
Dittoe, William H.,	Cer.	Senior	Columbus
Dock, Howard,	Engr.	Freshman	Cincinnati
Doelker, Theo. Frederick,	Engr.	Freshman	Columbus
Doerres ,J. Herman,	C. E.	Senior	Chillicothe
Dollison, Arthur Howell,	E. E.	Senior	Pleasantville
Donley, Ford,	I. A.	Senior	Cleveland
Dorchester, Paul,	Engr.	Freshman	Pittsburg, Pa.
Dorosin, Hirsch,	I. A. Short	Second	Kremtzug, Russia
Dorsey, Frank M.,	Chem.	Senior	Dresden
Dotter, Merion Julius,	Engr.	Freshman	Columbus
Doty, Preston,	M. E.	Sophomore	Columbus
Douglass, James Laurence,	Cer.	Sophomore	Columbus
Drackett, Philip W., Jr.,	Cer.	Sophomore	Cincinnati
Dressel, Charles Henry,	I. A. Sh't	First	Dayton
Dressler, Harvey Jacob,	C. E.	Junior	Dayton
Duckwall, Charles Sumner,	C. E.	Junior	Dayton
Dunsford ,Jan Rubidge,	M. E.	Senior	Columbus
Durfey, George Jackson,	Engr.	Freshman	Williamsburg,Va.
Durrell, Royal Sibley,	Engr.	Freshman	Cincinnati
Dutt, Narendra Nath,	Cer.	Sophomore	Bengal, India
Dutt, Sudhansu Mohun,	Engr.	Special	Bengal, India
Dye, Clifford Benjamin,	Chem.	Sophomore	Columbus
Dye, Hanford Anderson,	M. E.	Sophomore	Columbus
Earheart, John Carlisle,	M. E.	Junior	Hamilton
Earle, William Pitman, Jr.,	Cer.	Senior	Flatbush, L. I.
Eberle, John Joseph,	Engr.	Freshman	Columbus
Ebersbach, Walter F.,	E. E.	Sophomore	Pomeroy
Ebinger, David Hugo,	M. E.	Sophomore	Columbus
Edgerton, Lloyd B.,	M. E.	Junior	Tacoma
Ehrlich, Philip H.,	Engr.	Freshman	Ironton
Ehrman, Lewis George,	C. E.	Sophomore	Chicago
Eiselstein, George Louis,	E. E.	Senior	Pomeroy
Eldridge, Charles Hodges,	E. M.	Junior	Columbus
Eldridge, William Heath,	E. E.	Junior	Columbus
Elliott, Amer Fay,	E. E.	Sophomore	Milford Center
Elliott, Emerson McKee,	E. E.	Sophomore	Hamilton
Elliott, Leigh Birney,	C. E.	Senior	Washington C. H.
Ellis, Charles James,	M. E.	Sophomore	Greenfield
Ellstrom, George Oliver,	E. M.	Junior	Fitchburg, Mass.
Elzey, Ray,	E. E.	Special	Hilliard
Emrick, Ambrose Alfra,	M. E.	Sophomore	Germantown
Engel, William C.,	M. E.	Sophomore	Steubenville
Epstein, Hyman Marx,	E. M.	Sophomore	New York, N. Y.
Evans, Clarence Turner,	E. E.	Senior	Columbus
Evans, J. Stanley,	C. E.	Junior	Cincinnati
Evans, Russell Harrison,	Engr.	Freshman	Columbus
Ewing, Max Clark,	E. E.	Junior	Centerville
Eyman, Werter Scott,	C. E.	Junior	Columbus
Fast, John Edwin,	E. E.	Senior	Columbus
Faust, B. Webster,	E. M.	Junior	Canton

Name.	*Course.*	*Rank.*	*Home Address.*
Fawcett, Luther T.,	C. E.	Senior	Salem
Faxon, Isaac Davis,	Engr.	Freshman	Elyria
Featherly, Emmett Ray,	Engr.	Freshman	Niagara Falls, N.Y.
Fenton, Marshall Glover,	M. E.	Sophomore	Chillicothe
Ferguson, Robert Clark,	Engr.	Freshman	Columbus
Field, Wooster Bard,	Engr.	Freshman	Columbus
Finneran, John,	C. E.	Sophomore	Columbus
Finney, Carlton William,	M. E.	Senior	Niles
Fisher, George Philip,	Engr.	Freshman	Columbus
Flower, George Earl,	E. M.	Junior	Columbus
Foerster, George Bauer,	E. E.	Junior	Columbus
Folkerth, Clarence Boren,	Engr.	Freshman	Dayton
Forman, Alfred Melvin,	Engr.	Freshman	Springfield
Foster ,James C., Jr.,	C. E.	Sophomore	Higby
Foster, Orie Floyd,	Engr.	Freshman	Columbus
Frank, Carl Melvin,	Engr.	Freshman	Columbus
Frank, Clarence H.,	E. E.	Sophomore	Columbus
Frank, Donald W., I. A.	Short	First	Columbus
Frank, Sumner,	Engr.	Freshman	Zanesville
Frazier, Forrest Fay,	C. E.	Sophomore	Sidney
Freeman, Carlyle B.,	C. E.	Senior	Chillicothe
Frevert, Robert Andrew,	M. E.	Sophomore	Dayton
Friedman, Edgar Harrison,	Engr.	Freshman	Circleville
Friend, Fred F.,	C. E.	Sophomore	Blanchester
Fries, Robert Elmer,	M. E.	Junior	Canton
Frye, Roy R.,	Engr.	Freshman	Dennison
Fuller, Samuel Linn,	Engr.	Freshman	Columbus
Fulton, Charles Phillip,	Engr.	Freshman	Cambridge
Funk, Frank Wesley	E. E.	Senior	East Pittsburg, Pa.
Gable, Earl William,	Engr.	Freshman	Lorain
Gallagher, Herbert,	C. E.	Sophomore	Springfield
Gamble, Walter Wood,	Engr.	Freshman	Paulding
Garber, Frederick Rummel,	E. E.	Sophomore	Pleasant Ridge
Garcia, Rufino,	C. E.	Sophomore	Magsingal, P. I.
Gardner, Ross Vivian,	E. E.	Junior	Powell
Gascoigne, George,	C. E.	Junior	Toledo
Geddes, Donald Young,	C. E.	Senior	Zanesville
Gehres, Wilmer Gehres,	Engr.	Freshman	Waverly
Geib, Jay Russell,	Engr.	Freshman	Middlebranch
Gibson, Alfred Ernest,	M. E.	Junior	Cleveland
Gibson, Millard F.,	Cer.	Junior	Columbus
Gilbert, Rexford Whitney,	Engr.	Freshman	Mansfield
Gill, Ernest Lloyd,	Arch.	Sophomore	Ashtabula
Gillette, Clifford E.,	Engr.	Freshman	Marion
Gillig, John Thornton,	Arch.	Junior	Decatur, Ind.
Giveigian, Sirabion Vartan,	Engr.	Freshman	Varna, Bulgaria
Glunt, Stanley,	E. E.	Junior	Union City, Ind.
Gordon, Thomas Henry,	Engr.	Freshman	Parkersburg,W.Va.
Graber, Cloyd C.,	C. E.	Sophomore	Beach City
Grant, Charles C.,	M. E.	Senior	Akron
Grant, Ernest Holman,	Chem.	Sophomore	Kennedy
Grant, Irving Leslie, A.B.,	E. E.	Senior	Springfield

Name.	*Course.*	*Rank.*	*Home Address.*
Grant, William Henry,	Engr.	Freshman	Circleville
Gray, Clifford Fell,	Engr.	Freshman	Lorain
Gray, George Francis,	E. E.	Junior	Wheelersburg
Gray, Hugh Gordon,	Engr.	Freshman	Mansfield
Gray, Guy Willoughby,	C. E.	Junior	Columbus
Greegor, Ralph Harold,	C. E.	Senior	Columbus
Green, John Carl,	E. E.	Junior	Shepard
Greenamyer, Merle R.,	E. E.	Sophomore	Leetonia
Greener, George Courtright,	Cer.	Senior	Columbus
Gregg, Earl,	Engr.	Freshman	West Jefferson
Gregg, Robert De Moss,	Engr.	Freshman	Genoa
Grener, August T.,	E. E.	Junior	Camp Chase
Griesinger, Walter,	Engr.	Freshman	Mansfield
Griffin, Fred,	E. E.	Sophomore	Copley
Grimes, Fred Loomis	M. E.	Sophomore	Sandusky
Groner, Clyde Sterling,	E. E.	Sophomore	Leetonia
Grossman, Henry,	E. E.	Senior	Grove City
Gue, George Erskine T.,	Engr.	Freshman	New Lexington
Guillaudeu, Arthur,	Chem.	Sophomore	Madisonville
Hadden, Clyde C.,	C. E.	Junior	Painesville
Hagerman, William Roy,	C. E.	Sophomore	Galion
Hale, Kenneth,	E. E.	Sophomore	Columbus
Hall, Charles A.,	C. E.	Sophomore	Sidney
Hall, Herman Allen,	Cer.	Sophomore	Plain City
Hambright, Arthur Minter,	E. E.	Junior	Springfield
Hansberger, Claude Raymond,	Engr.	Freshman	Columbus
Hardy, Joe,	Engr.	Freshman	Corning
Hare, Robert L.,	Cer.	Senior	Upper Sandusky
Harsh, Robert Stemple,	Arch.	Sophomore	Cleveland
Hart, Laurance Hastings,	Engr.	Freshman	Cleveland
Hartman, Oscar Rudolph,	M. E.	Sophomore	Woodville
Hartman, Otto Rudolph Henry,	E. E.	Sophomore	Woodville
Hartzell, Ross Calvin,	E. E.	Sophomore	Troy
Harvey, George Henry,	C. E.	Sophomore	Columbus
Hauck, Fred Kolb,	Engr.	Freshman	Springfield
Haven, Carl W.,	I. A. Short	First	Grafton
Haverfield, George Melvin,	M. E.	Sophomore	Cadiz
Hawkins, Paul,	C. E.	Sophomore	Xenia
Hay, Earl Edwin,	C. E.	Sophomore	Osnaburg
Hay, Glen Irwood,	Engr.	Freshman	Canton
Hazlett, Randall Ross,	E. E.	Senior	White Cottage
Heath, Harold Theodore,	Engr.	Freshman	Cuyahoga Falls
Heathorn, Otha,	Cer. Short	First	West Sonora
Hedge, James Clay,	Engr.	Freshman	Caldwell
Heegele, August Jacob,	C. E.	Junior	Columbus
Heinrichs, Carl Frederick,	C. E.	Sophomore	Cleveland
Hellings, Harry A.,	C. E.	Sophomore	Gloversville, N.Y.
Helpbringer, James Nelson,	Engr.	Freshman	Glencoe
Henderson, Chester Ellsworth,	Cer.	Sophomore	Maynard

Name.	*Course.*	*Rank.*	*Home Address.*
Henkle, Christian,	Min. Short	First	Gallipolis
Henry, Harold A.,	Cer.	Senior	Columbus
Herrick, Charles,	C. E.	Sophomore	Columbus
Hildreth, John Craig,	E. E.	Junior	Cincinnati
Hill, Ercell Channing,	Engr.	Freshman	Middleport
Hill, Freda,	Arch.	Sophomore	Rio Piedras, P.R.
Hill, Lewis Clifford,	Engr.	Freshman	Columbus
Hoberg, Harry Henry,	M. E.	Junior	New Bremen
Hodges, Charles B.,	Engr.	Freshman	Delaware
Hoffman, Felix Warren,	C. E.	Sophomore	Canal Dover
Holl, Wilbur E.,	M. E.	Sophomore	Canton
Hopkins, Archie Luman,	M. E.	Sophomore	Garrettsville
Hopkins, Earl Osborn,	C. E.	Senior	Garrettsville
Horn, Harry Richard,	Engr.	Freshman	Defiance
Hornbrook, John Roscoe,	E. M.	Senior	Barnesville
Hoursouripe, Juan,	Engr.	Freshman	Buenos Aires, A. R.
Houston, Elden,	Engr.	Freshman	London
Howard ,Harry W.,	E. E.	Sophomore	Lancaster
Howard, Walter Burt,	Engr.	Freshman	West Jefferson
Hubbell, James Davis, Jr.,	Engr.	Freshman	Columbus
Hugus, Lloyd V.,	Engr.	Freshman	Findlay
Humphrey, Dwight Elmer,	Cer. Short	Second	Peninsula
Humphrey, Errett Stevenson,	Engr.	Freshman	Belleville, W. Va.
Hunt, Raymond Edw.,	I. A. Sh'rt	First	Cleveland
Hunter, Frank,	I. A. Short	First	Alliance
Hurlburt ,Robert Lee,	Engr.	Freshman	Freedom
Huston, Robert Morris,	Engr.	Freshman	Columbus
Hyatt, Edward,	Engr.	Freshman	Cleveland
Hyde, George Milton,	Engr.	Freshman	Corning, N. Y.
Inskeep, Clair Allen,	C. E.	Senior	Bellefontaine
Jackson, Benj. Anderson,	C. E.	Senior	Columbus
Jackson, Herbert,	I. A. Short	First	Hamilton
Jacobs, William McFarlin,	Engr.	Freshman	Youngstown
Jenkins, Howard LeRoy,	Engr.	Freshman	Springfield
Jennings, Clair E.,	Engr.	Freshman	North Fairfield
John, Joseph Ralph,	Engr.	Freshman	Xenia
Johnson, Coleman Albert,	Engr.	Freshman	Columbus
Johnston, Brandt Griffith,	Cer. Short	Second	Zanesville
Johnston, Harry A.,	Engr.	Freshman	Covington
Jones, Huw D.,	Min. Short	Second	Louisville, Ky.
Jones, Roscoe C.,	Chem.	Sophomore	Battle Cr'k, Mich.
Jordan, Thomas Jefferson,	I.A.Sh.	First ,	Lockesburg, Ark.
Judkins, Morton,	M. E.	Sophomore	Columbus
Jue, Park S.,	Engr.	Freshman	Canton, China
Karzensky, Samuel,	Cer.	Junior	Newport, Ky.
Katz, Sidney H.,	Chem.	Junior	Marion
Kautzman, Roy,	E. E.	Sophomore	Columbus
Kegerreis, Roy,	Engr.	Freshman	Bellevue
Kelso,Charles Fred,	Engr.	Freshman	Sabina

Name.	*Course.*	*Rank.*	*Home Address.*
Kelso, Erle Roland,	Engr.	Freshman	Columbus
Kempton, Ralph Chester,	Engr.	Freshman	Utica
Kendig, Frank A.,	Engr.	Freshman	Osborn
Kercher, Henry,	C. E.	Sophomore	Germantown
Kettler, Hugo Fred,	C. E.	Sophomore	New Bremen
Kevern, Richard Rudolph,	Chem.	Sophomore	Cleveland
Kilbury, Earl,	Engr.	Freshman	Jackson
King, Arthur F.,	Cer.	Junior	Columbus
King, Clarence Roscoe,	Engr.	Freshman	Toledo
Kinnear, Josiah D.,	E. M.	Sophomore	Columbus
Kinnear, Ralph Edgar,	E. M.	Sophomore	Columbus
Kinney, Bartley H.,	E. M.	Senior	Bellaire
Kinnison, Chas. Shadrach,	Engr.	Freshman	Jackson
Kirker, Fred,	Engr.	Freshman	Worthington
Kline, Harry F.,	Engr.	Freshman	Springfield
Klyne, Paul S.,	E. M.	Junior	Deerfield
Kneisley, Harry L.,	Engr.	Freshman	Troy
Knerr, Herbert S.,	E. E.	Senior	Dayton
Knight, Harry Clark,	Chem.	Junior	Columbns
Knight, John S.,	C. E.	Sophomore	Attica
Koons, George Henry,	M. E.	Sophomore	Columbus
Kramer, Donald S.,	E. E.	Junior	Lancaster
Kromer, Clarence Fred,	Engr.	Freshman	Columbus
Kuenzel, Felix A.,	I. A.	Senior	New Bremen
Kuenzel, Paul Emil,	Engr.	Freshman	New Bremen
Kvet, Edward Joseph,	Chem.	Senior	Cleveland
La Crone, Pearl M.,	Engr.	Freshman	Ezra, Miss.
Lake, Thomas Emil,	C. E.	Sophomore	Hermosilla, Mex.
Lamb, Lyman C.,	Engr.	Freshman	East Liberty
Lamberger, Louis Jacob,	E. E.	Sophomore	Dennison
Lambert, Walter Oscar,	Engr.	Freshman	Germantown
Lammer, Hannes Freder'k,	Engr.	Special	Cleveland
Lane, Daniel Park,	C. E.	Senior	Norwood
La Rue, Luther,	Engr.	Freshman	La Rue
Lattimer, Curtis Crum,	C. E.	Sophomore	Columbus
Lauck, Emerson,	Engr.	Freshman	London
Lawrence, Gerald Peirce,	M. E.	Senior	Columbus
Lawrence, Ralph Clark,	Engr.	Freshman	Dayton
Lee, Walter Scott,	C. E.	Sophomore	Harlem Springs
Lee Feaver, James Harrison,	Engr	Freshman	Morrisville, N. Y.
Lehman, Raymond D.,	Engr.	Freshman	Columbus
Leinbach, Heber,	Engr.	Freshman	Rossville, Ga.
Leslie, George Clark,	Engr.	Freshman	Gates Mills
Levering, Howard Allen,	E. M.	Junior	Mt. Vernon
Levering, Russell Edgar,	Engr.	Freshman	Mt. Vernon
Lewis, John Ernest,	M. E.	Senior	Jamestown, N. Y.
Lewis, Robert M.,	C. E.	Sophomore	Cleveland
Lewis, Thomas Albert,	M. E.	Junior	Martins Ferry
Liebich, Arthur T.,	Engr.	Freshman	Bucyrus
Linch, Harry Albert,	Engr.	Freshman	Steubenville
Lind, Henry Earl,	Engr.	Freshman	Middlebranch
Lind, Louis Joseph,	Cer.	Junior	Columbus

Name.	*Course.*	*Rank.*	*Home Address.*
Linn, Edward Roy,	C. E.	Sophomore	Columbus
Linville, Roy Emerson,	M. E.	Senior	Urbana
Livingston, Addison Sears,	E. M.	Sophomore	Columbus
Lloyd, Austin M.,	Engr.	Freshman	N.Cumber'd, W.Va.
Loew, Charles Frederick,	Engr.	Freshman	Lakewood
Lok, Karl Henry,	Engr.	Freshman	Toledo
Longenecker, Hilton Lowey,	Engr	Freshman	Dayton
Longsworth, Clyde Bronson,	E. E.	Junior	Van Wert
Lopez, Saturnino,	M. E.	Sophomore	Gapan, P. I.
Loreaux, William D.,	Chem.	Sophomore	East Akron
Ludwig, William F.,	E. E.	Sophomore	Marietta
Luse, William Herbert,	Engr.	Freshman	Cedarville
Lutz, Eli Marion,	Engr.	Freshman	Circleville
Lyman, William Johnston,	Engr.	Freshman	Knoxville, Tenn.
McAfee, Dan Shields,	Engr.	Freshman	Cleveland
McAllister, Harold Alanson,	E.M.	Junior	Columbus
McCafferty, Thaddeus,	E. M.	Sophomore	Washington C. H.
McCann, James S.,	I. A. Short	First	Junction City
McCann, William Sharp,	Engr.	Freshman	Cadiz
McCartney, John Vinton,	Engr.	Freshman	Tyrrell
McClean, Herman W.,	Engr.	Freshman	London
McClelland, Cory Chalmers,	Engr.	Freshman	Findlay
McClung, Harvey Fillmore,	Engr.	Freshman	Bowling Green
McClure, Alexander Ewart,	C. E.	Sophomore	No. Hoosick, N.Y.
McClure, James Julius,	Engr.	Freshman	Newark
McCorkle, Joseph Roland,	Cer.	Sophomore	Warren
McCullough, Clyde V.,	Engr.	Freshman	Hilliards
McDorman, Paullin,	Chem.	Senior	Selma
McDougal, Taine Gilbert,	Engr.	Freshman	New Lexington
McDowell, Rollin Fay,	C. E.	Senior	Columbus
McFarland, John Edgar,	Engr.	Freshman	Bridgeport
McFarland, William Norris,	C.E.	Junior	Bridgeport
McGoun, Nelson Lawrence,	Engr.	Freshman	Kingsville
McGrath, Frank,	C. E.	Sophomore	Columbus
McGuire, Carl Donham,	Engr.	Freshman	Columbus
McIlroy, Roy Harden,	Cer.	Junior	Brookville
McKenney, John Sidney,	M. E.	Sophomore	Cleveland
McMaster, Lawrence Donald,	E.M.	Senior	Middleport
McNabb, James Charles,	Engr.	Freshman	Fostoria
McNees, Clifford B.,	Cer Short	First	Kittanning, Pa.
McQuigg, Charles Ellison,	E. M.	Junior	Ironton
MacDougal, Mathew Ferdinand,	C. E.	Sophomore	Gloversville, N. Y.
Mack, Clinton Leroy,	Engr.	Freshman	Windsor, Conn.
Maddux, Joseph M.,	Engr.	Freshman	London
Mahurin, Frank R.,	Cer.	Junior	Columbus
Main, Harland Vincent,	Chem.	Junior	Columbus
Malm, Arthur Theodore,	Cer.	Senior	Worcester, Mass.
Maloney, Frank Michael,	Engr.	Freshman	Columbus
Manning, Ernest Page,	E. M.	Sophomore	Toledo
Marchand, Bruce Frederick,	Cer.	Junior	Wooster
Marckworth, Waldemar Cullen,	Engr.	Freshman	Cincinnati

Name.	*Course.*	*Rank.*	*Home Address.*
Marco, Ernesto F.,	E. E.	Junior	Gen. Urquiza, A. R.
Mariategui, Isaac,	Engr.	Freshman	Parana, A. R.
Marsh, Kenneth Ames,	Engr.	Freshman	Galion
Martin, Arthur Emil,	Arch.	Sophomore	Hamilton
Martin, Donald C.,	Engr.	Freshman	Ironton
Martin, Walter Franklin,	M. E.	Senior	Richwood
Marting, Amos,	Chem.	Junior	Ironton
Marting, Heber Edwin, B.Sc.,	E .E.	Junior	Ironton
Mather, George Lowell,	Engr.	Special	Magnetic Springs
Mayer, Carl Frederick,	Arch.	Senior	Columbus
Means, Charles Courtland,	Engr.	Freshman	Cleveland
Mehen, Stephen F.,	Min. Short	First	Grand Rapids, Mich.
Mellinger, James Max,	Engr.	Freshman	Arcanum
Mellor, Roy Hugh,	Engr.	Freshman	Dennison
Melsheimer, Charles A.,	Engr.	Freshman	Van Wert
Merkle, Edgar C.,	Cer. Short	Second	Hartville
Meuche, Karl Serbohm,	Cer.	Sophomore	Dayton
Meyer, Henry J.,	Engr.	Freshman	Wapakoneta
Miesse, Leon Walters,	Engr.	Freshman	Lancaster
Miller, Chalmers,	C. E.	Junior	Columbus
Miller, Clyde Leo,	C. E.	Sophomore	Pemberton
Miller, Edwin Joseph,	E. M.	Sophomore	Dubuque, Iowa
Miller, Harry Leonard,	Engr.	Freshman	Newark
Miller, Malcolm Melville,	M. E.	Sophomore	Columbus
Miller, Richard E.,	M. E.	Junior	North Dover
Miller, Roy Evans,	C. E.	Senior	Lebanon
Miller, Roy Orville,	Engr.	Freshman	Columbus
Miller, Samuel Joseph,	Engr.	Freshman	New York, N. Y.
Miller, Von Clyde,	Engr.	Freshman	Columbus
Millikin, Arnould Schelly,	Engr.	Freshman	Hamilton
Millins, Melvin Earl,	Engr.	Freshman	Fremont
Minneman, Johannes,	Cer.	Sophomore	Sidney
Mitchell, Ralph,	E. E.	Junior	Troy
Mitchell, Russell S.,	Engr.	Freshman	Wilmington
Montgomery, Robert J.,	Engr.	Freshman	Columbus
Moore, Chester Case,	Engr.	Freshman	Columbus
Moore, Delbert Benton,	E. E.	Senior	Columbus
Moore, Franklin Burdette,	Cer. Short	Second	Greentown
Moore, John Cogsil,	Engr.	Special	Hammondsville
Moore, William Henry J.,	C. E.	Sophomore	Mansfield
Moorman, Rogers,	I. A. Short	First	Columbus
Morelock, Asa,	Engr.	Freshman	Marysville
Morgan, Guy John,	M. E.	Junior	Youngstown
Morris, Fred,	Min. Short	First	Wheeling, W. Va.
Morris, George D.,	Cer.	Senior	Marion
Morris, Thomas Bray,,	M. E.	Junior	Cincinnati
Mosier, Willard Henry,	Engr.	Freshman	Columbus
Mougey, Harry Clifford,	Engr.	Freshman	Columbus
Moulton, Donald Alonzo,	Cer.	Senior	Ironton

Name.	*Course.*	*Rank.*	*Home Address.*
Mount, Carroll Hays,	M. E.	Sophomore	Columbus
Mounts, Joseph Lindsey,	Engr.	Freshman	Morrow
Mueller, William August,	Engr.	Freshman	Cincinnati
Mukerjee, Praphullachandra,	Engr.	Freshman	Calcutta, India
Mullin, William George,	E. E.	Senior	New Lexington
Mumma, George Russell,	Cer. Sh.	First	Dayton
Mundhenk, Guy H.,	Engr.	Freshman	Brookville
Murr, Glenn,	Engr.	Special	Dayton
Murray, Gerard A.,	Cer.	Sophomore	Baltimore, Md.
Murray, Harry,	M. E.	Sophomore	Baltimore, Md.
Myers, C. Howard,	Cer.	Junior	Upper Sandusky
Naidu, Shringarm Hanmant,	Engr.	Special	Wardha, India
Naimon, Abraham,	C. E.	Sophomore	New York, N. Y.
Neal, Harry Elwood,	Cer.	Sophomore	Lancaster
Nealon, Elmer James,	Chem.	Sophomore	Columbus
Neff, Charles Powell,	E. E.	Sophomore	Osborn
Neff, Herbert Brannen,	Min. Sh.	Second	Bellaire
Neff, Merle Wayne,	C. E.	Sophomore	Kingston
Nieding, Frank Edward,	E. M.	Junior	Cleveland
Nixon, Horace O.,	C. E.	Sophomore	Lowellville
Noble, Sylvester Alonzo,	Engr.	Freshman	Columbus
Noethlich, Albert George,	Engr.	Freshman	Columbus
Nold, Harry Ellsworth,	E. M.	Junior	Akron
Nordholt, John Benjamin,	M. E.	Senior	Hamilton
Norton, William Herman,	C. E.	Junior	Columbus
Nothstine, Arthur Clarence, Jr.	Chem.	Senior	Circleville
Oakes, George Wells,	E. E.	Sophomore	Little Hocking
O'Brien, Lawrence Joseph,	Engr.	Freshman	Columbus
Ogan, John Miles,	Cer.	Junior	McArthur
Ogden, Lester,	Cer.	Junior	Columbus
Ogg. Lester Caris,	Engr.	Freshman	Mt. Vernon
Ojeda, Augustin M., Jr.,	E. E.	Sophomore	Buenos Aires,A.R.
Olds, Harold Myers,	E. E.	Senior	Elyria
Onrubia, Lorenzo Rios,	C. E.	Sophomore	San Roque, P. I.
Ortman, Fred Benson,	Cer.	Sophomore	Columbus
Osborn, Harry James,	E. E.	Freshman	Wilkinsburg, Pa.
Osborn, Howard Williams,	Engr.	Freshman	Columbus
Oswald, Eugene,	M. E.	Special	Buenos Aires, A. R.
Oviatt, Fayette Lincoln,	Engr.	Freshman	Hudson
Packard, Horace Nelson,	M. E.	Senior	Brockton, Mass.
Page, Martin Edwin,	Engr.	Freshman	Chesterland
Pape, Louis Robert,	Engr.	Freshman	Dayton
Parks, Charles William,	Cer.	Sophomore	Austinburg
Parks, John McAuliffe,	Engr.	Freshman	Austinburg
Parks, Thomas Lewis,	C. E.	Sophomore	Louisville, Ky.
Parmelee, Gordon N.,	Engr.	Freshman	Elyria
Patasky, Herman,	Engr.	Freshman	Dayton
Pearce, Bryden,	Engr.	Freshman	Cadiz
Peirsol, Charles David,	Engr.	Freshman	Columbus

Name.	*Course.*	*Rank.*	*Home Address.*
Pence, Forrest K.,	Cer.	Junior	Columbus
Penn, Ralph R.,	E. E.	Senior	Washington C. H.
Perkins, Elizabeth Malcolm,	Engr.	Freshman	Searchlight, Nev.
Perkins, Lewis Arthur,	M. E.	Sophomore	Columbus
Perry, Glenn L.,	C. E.	Junior	Chillicothe
Peterka, Joseph James,	M. E	Junior	Cleveland
Pickering, Edward D.,	Engr.	Special	Cleveland
Pidgeon, Clifford H.,	M. E.	Junior	Goshen
Piedad, Juan,	M. E.	Sophomore	San Nicolas, P. I.
Pierce, Glen S.,	C. E.	Sophomore	Columbus
Piper, Eldred Hall,	C. E.	Sophomore	Columbus
Piper, Robert Lewis,	Chem.	Junior	Springfield
Plumb, Winthrop Gladwin,	Engr.	Freshman	Columbus
Pohlman, Irwin Henry,	Engr.	Freshman	New Bremen
Pool, Carl Emer,	E. E.	Senior	Urbana
Pool, John G.,	C. E.	Junior	Dayton
Popp, Clarence Morvilius,	Engr.	Freshman	St. Marys
Porter, Dalton B.,	M. E.	Sophomore	So. Haven, Mich.
Postle, Halford M.,	E. M.	Sophomore	Worthington
Potter, Carl Vernon,	C. E.	Junior	Wapakoneta
Potts, Amos Peaslee,	Engr.	Freshman	Trenton, N. J.
Powell, Donald Adair,	Engr.	Freshman	Columbus
Powell, Harold Thomson,	Engr.	Freshman	Columbus
Powers, Raymond C.,	Engr.	Freshman	Urbana
Pranke, Edward John,	Engr.	Freshman	Halfway, Mich
Pratt, Edward Jacob,	Engr.	Freshman	Delta
Pritz, Wesley Boren,	Chem.	Junior	Dayton
Probst, Carl Knight,	M. E.	Senior	Columbus
Probst, John Frederick,	E. E.	Senior	Columbus
Purdy, Ross C.,	Cer.	Senior	Columbus
Puryear, William Reid,	Engr.	Special	Franklin, Tenn.
Quevedo, Mannel Garcia de,	E.E.	Special	Guadalajara, Mex.
Rainey, Lloyd Blair,	Cer.	Sophomore	Mansfield
Ralston, Byron Brown,	Engr.	Freshman	Fostoria
Ramsey, Ernest Cope,	E. M.	Junior	Columbus
Ramsower, Harry Clifford,	Engr.	Special	Granville
Rataiczak, Thomas Francis,	M.E.	Senior	Stryker
Rea, Abel Stephen,	Cer.	Junior	Bellefontaine
Rea, Bernard Johnson,	Engr.	Freshman	West Mansfield
Reed, Clarence Eugene,	Engr.	Freshman	Sabina
Reed, Roscoe Earl,	Engr.	Freshman	Sabina
Reel, Herbert W.,	E. M.	Sophomore	Columbus
Rees, Thomas A.,	Engr.	Freshman	Pittsburg, Pa.
Reese, Joseph D.,	Engr.	Freshman	Massillon
Regal, Arthur E.,	Engr.	Freshman	Akron
Reichelderfer, Evan W.,	Engr.	Freshman	Circleville
Reifsnider, Lee Roy,	Min. S.	Special	Akron
Rice, Horace Thirkield,	Engr.	Freshman	Sidney
Richards, Clare A. J.	C. E.	Junior	Bucyrus
Richards, Ray S.,	M. E.	Sophomore	Lorain
Richardson, Floyd A.,	E. E.	Junior	Columbus
Ridenour, Lertin Washington,	E. E.	Senior	West Manchester

Name.	*Course.*	*Rank.*	*Home Address.*
Rigby, John J.,	Engr.	Freshman	Cambridge
Rigby, Richard R.,	Cer.	Junior	East Liverpool
Riley, William S.,	Cer.	Sophomore	Steubenville
Ringwald, William Eli,	C. E.	Junior	Chillicothe
Roa, Manuel A.,	M. E.	Sophomore	Cagayan, Windanao, P. I.
Roberts, William Jesse,	E. E.	Senior	Cincinnati
Robinson, Edgar William,	Engr.	Freshman	Columbus
Robinson, William A.,	Engr.	Freshman	Malta
Rogers, Gregory L.,	Cer.	Junior	Madisonville
Rogers, Raymond Alward,	Engr.	Freshman	Columbus
Rolfe, Miner Tomas,	Engr.	Freshman	Wellington
Roll, William Charles August,	Ind. Arts, S.	First	Sandusky
Rolnick, Samuel,	E. E.	Sophomore	Columbus
Romaine, Henry Franklin,	E. M.	Sophomore	Columbus
Ronan, Wilbert Cathmore,	Arch.	Sophomore	Cincinnati
Root, Wallace Fenn,	C. E.	Junior	Streetsboro
Rosch, Albert Theodore,	Engr.	Freshman	New Philadelphia
Rose, Earl Griffith,	Eng.	Freshman	Duvall
Rosino, Gilbert G.,	E. M.	Sophomore	Sandusky
Ross, Coleman B.,	M. E.	Sophomore	Urbana
Rossbach, Joseph H., Jr.,	Engr.	Freshman	Perrysburg
Rothman, Charles,	Cer.	Junior	Cleveland
Roush, Leroy,	E. E.	Senior	Canton
Row, Harold D.,	Engr.	Freshman	Galion
Ruffcorn, Frank E.,	Engr.	Freshman	Ashland
Ruffcorn, Geo. Washington,	Engr	Freshman	Ashland
Rush, Cecil Bertram,	C. E.	Senior	Mt. Vernon
Rush, Clyde Irwin,	C. E.	Sophomore	Metropolis, Ill.
Rusk, Forrest Seiler,	Arch.	Sophomore	Columbus
Russell, Malcolm,	Ind. Arts, S.	First	Shawnee
Ryder, Isaac,	Cer. S.	First	Lewisburg
Sackriede, Wm. John F.,	C. E.	Freshman	Cincinnati
Sample, Jared Irvin,	E. E.	Senior	Columbiana
Sanzenbacher, Walter Otto,	C. E.	Junior	Piqua
Savidis, Pericles G.,	E. M.	Sophomore	Samsoun, Turkey
Scantlebury, Ralph Thomas,	C.E.	Sophomore	Ashland
Scatterday, John Archimedes,	Engr.	Freshman	Columbus
Schachtel, Solly Harris,	Cer.	Junior	Cleveland
Schaefer, Carl A.,	E. E.	Sophomore	Pomeroy
Schaeffer, J. Floyd,	E. M.	Sophomore	Mansfield
Schepflin, William Ferd'k,	C. E.	Junior	Fremont
Schieber, Arthur LeRoy,	Engr.	Freshman	Bucyrus
Schiltz, Leo A.,	E. E.	Sophomore	New Berlin
Schmidt, Victor Phillip,	Engr.	Freshman	Columbus
Schopp, James R.,	C. E.	Senior	Lancaster
Schory, Herbert John,	C. E.	Junior	Canton
Schory, Ralph Miller,	Cer.	Junior	Canton
Schryver, Howard French,	C. E.	Senior	Columbus

Name.	*Course.*	*Rank.*	*Home Address.*
Schultz, Frank Elmer,	Cer. S.	Second	Diamond
Schwerber, George,	Cer. S.	First	Zanesville
Scott, Archie Hammond,	E. M.	Sophomore	Altoona, Pa.
Scott, Harlan Wuichet,	Engr.	Freshman	Columbus
Scott, Russell Dana,	Chem.	Junior	Columbus
Scott, Wirt Stanley,	Engr.	Special	Portsmouth, Va.
Seabright, Huber Anderson,	E.E.	Senior	Blaine
Seaman, Sidney Ranch,	Engr.	Freshman	Dayton
Sell, Howard Ray,	Min. S.	First	Cleveland
Seymour, Walter F.,	Engr.	Freshman	Sandusky
Shafer, Oliver George,	C. E.	Sophomore	Caldwell
Shaffer, Francis Henry,	Chem.	Sophomore	Columbus
Shanton, John Gaylord,	Engr.	Freshman	Chillicothe
Sharon, John Cunningham,	Engr.	Freshman	Cadiz
Shaw, Arthur H. C.,	C. E.	Junior	Coshocton
Shaw, Joseph Bradfield,	Cer.	Senior	West Lafayette
Shawan, Robert Foster,	E. M.	Senior	Columbus
Sheets, Cree,	Arch.	Junior	Tacoma
Sheidler, Paul King,	C. E.	Junior	Saint Paris
Sherman, Charles Ferry,	E. M.	Sophomore	Willoughby
Shew, Walter Edgar,	M. E.	Senior	Dayton
Shilling, Harvey F.,	Chem.	Junior	Troy
Shinkle, Lee Hale,	E. E.	Senior	Higginsport
Shirk, Earl Millner,	C. E.	Junior	Wheeling, W. Va.
Shklarin, Joseph,	Engr.	Freshman	New York, N.Y.
Shockley, Clarence William,	Engr.	Freshman	Mt. Sterling
Shoemaker, Clifford,	C. E.	Senior	Grogan
Shoemaker, Lewis H.,	M. E.	Sophomore	Massillon
Shoemaker, Ralph,	Cer.	Sophomore	Columbus
Shore, Ben Edwards,	Chem.	Sophomore	Dresden
Shuler, Harvey A.,	Engr.	Special	Hamilton
Simmons, Floyd,	E. M.	Sophomore	Columbus
Sims, Ray,	Engr.	Freshman	Columbus
Singer, Roland P.,	E. E.	Sophomore	Lewisburg
Sivas, Hyrand A.,	Engr.	Freshman	Marsovan, Turkey
Slade, Lester P.,	Engr.	Freshman	Mechanicsville N.Y.
Sleight, George James,	C. E.	Sophomore	Cleveland
Sloan, John Tolbert,	Engr.	Freshman	Trimble
Slobod, Anshel,	E. E.	Sophomore	Brooklyn, N. Y.
Smith, Adolph William,	C. E.	Sophomore	Dayton
Smith, Clyde,	Engr.	Freshman	Groveport
Smith, Harold Sydney,	Engr.	Freshman	Columbus
Smith, Harry Howard,	C. E.	Junior	Reynoldsburg
Smith, Homer,	Engr.	Freshman	Plain City
Smith, Joseph Charles,	Engr.	Freshman	Mt. Vernon
Smith, Louis A.,	Engr.	Freshman	New Brighton, Pa.
Smith, Merlin,	Engr.	Freshman	Bellefontaine
Smith, Milton Howard,	E. M.	Sophomore	Columbus
Smith, Paul Alan,	Engr.	Freshman	Columbus
Smith, Raymond Hewitt,	Engr.	Freshman	Woodstock
Smith, Sidney Scott,	Arch.	Sophomore	Columbus
Snow, Glenn E.,	C. E.	Junior	Toledo

Name.	*Course.*	*Rank.*	*Home Address.*
Snowhill, Granville,	C. E.	Junior	Fayetteville
Snyder, Floyd Lozene,	Engr.	Freshman	Massillon
Sohn, Erwin,	Chem.	Junior	Cincinnati
Sosman, J. Leland,	M. E.	Junior	Chillicothe
Southward, Glenn B.,	E. M.	Senior	Columbus
Sparrow, William H.,	E. E.	Junior	Cleveland
Spiker, Alvin D.,	M. E.	Sophomore	Dennison
Splitstone, Edward L.,	E. E.	Sophomore	Kinsman
Sproat, Elmer Ira,	Cer.	Junior	Covington
Stallkamp, Ralph Fred'k,	Engr.	Freshman	Delphos
Stapp, Burton Braxton,	Min. S.	First	Columbus
St. Clair, Charles R.,	C. E.	Sophomore	Cumberland
Stebbins, Carl Rolland,	Engr.	Freshman	Creston
Steinbarger, Walter Dix,	C. E.	Sophomore	Columbus
Stephens, Leo,	Ind. Arts, S.	Second	Port William
Stertzbach, Harry Walter,	C. E.	Sophomore	Coshocton
Stevenson, Carl S.,	E. M.	Senior	West Rushville
Stevenson, Herbert Leon,	M. E.	Senior	Upper Sandusky
Stewart, Arthur Douglas,	E .E.	Sophomore	Newport
Stewart, John Gilbert,	E. E.	Senior	Belle Center
Stiehl, Carl Ernst,	Engr.	Freshman	Hamilton
Stoecklein, William E.,	C. E.	Sophomore	Dayton
Stoltz, Glenn,	E. E.	Junior	Gettysburg
Stout, Wilber,	Engr.	Special	Sciotoville
Stowe, William Huntley,	C. E.	Sophomore	Marietta
Stowell, Francis Howard,	C. E.	Sophomore	Columbus
Straight, Carl,	C. E.	Sophomore	Streetsboro
Strandburg, Charles J.,	C. E.	Senior	Jamestown, N. Y.
Stringfellow, Sidney Don,	Engr.	Freshman	Findlay
Strodtbeck, Frank H.,	Engr.	Freshman	Middletown
Stuckey, Robert Burns,	Ind. Ar.S.	First	Columbus
Stueve, Winfred H.,	E. E.	Senior	Wapakoneta
Svimonoff, Victor C.,	Engr.	Freshman	Tiflis, Russia
Sweeney, Orland	Chem.	Junior	Martin's Ferry
Taber, William P.,	E. M.	Junior	Barnesville
Tabossi, Hector,	E. E.	Junior	Parana, A. R.
Taggart, William Wallace,	C. E.	Senior	Wooster
Takahashi, Kwaknichiro,	Cer.	Senior	Uchiko, Japan
Talmage, Henry Richard,	M. E.	Junior	Mt. Gilead
Tanner, John Raymond,	C. E.	Junior	Columbus
Tappan, Frank Glenn,	Engr.	First	Delta
Tarbox, Fred,	E. E.	Sophomore	Findlay
Taylor, Earl D.,	M. E.	Junior	McConnelsville
Teegarden, Chester,	E. E.	Junior	Greenville
Theobald, Paul Frederick,	E. M.	Senior	Columbus
Thomas, Byron,	Engr.	Freshman	Arcanum
Thomas, George William,	C. E.	Sophomore	New Madison
Thompson, Frank Lon,	Engr.	Freshman	Washington C. H.
Thompson, Robert,	E. E.	Sophomore	Hilliards
Thomson, Douglas,	Min. Short	First	Lima
Tillman, John Henry,	M. E., Engr	Special Grad.	Columbus
Todd, Lester Adrian,	Min. Short	First	Cleveland

Name.	*Course.*	*Rank.*	*Home Address.*
Toledo, Antonio,	C. E.	Sophomore	San Roque, P. I.
Trainer, James E.,	C. E.	Sophomore	Columbus
Triem, William Richard,	C. E.	Sophomore	Cambridge
Turnbull, William Davis,	C. E.	Senior	Ironton
Upp, Clarence Raymond,	M. E.	Sophomore	Wauseon
Valentine, Herbert,	M. E.	Junior	Columbus
Vallance, Alexander,	M. E.	Junior	Youngstown
Van Atta, Robert Smith,	E. E.	Sophomore	Columbus
Van Buskirk, Lear Harry,	Chem.	Sophomore	Fayette
Vandament, Harley L.,	C. E.	Sophomore	Laurel
Vennum, Ralph Edward,	E. M.	Senior	Martins Ferry
Volkmann, Robert,	E. E.	Junior	Canton
Vosburg, Willis Harvey,	Engr.	Freshman	Kingsville
Wagner, Otto Jesse,	E. E.	Sophomore	Bucyrus
Waid, Robert Neil,	C. E.	Junior	Townville, Pa.
Walker, Fred Livingood,	Engr.	Freshman	Kirkersville
Walling, Arthur B.,	Engr.	Special	Muncie, Ind.
Ward, Grant P.,	Engr.	Freshman	Wellston
Ward, Kenneth Baker,	C.E., Eng.	Special Grad.	Painesville
Ward, Seymour Paul,	Cer.	Sophomore	Glendale, Cal.
Wardwell, Frank C.,	C. E.	Sophomore	Conneaut
Warner, Lawrence A.,	Engr.	Freshman	Medina
Warner, Walter,	E. E.	Sophomore	Levittsburg
Watson, Earl,	E. E.	Junior	Lima
Watt, H. Huston,	Chem.	Junior	Barnesville
Webb, Clarence Boutelle,	Engr.	Freshman	Defiance
Webster, Philip Harvey,	Engr.	Freshman	Van Wert
Weimer, George O.,	E. E.	Sophomore	Beach City
Weimer, Leland Frank,	E. E.	Junior	Beach City
Weinrich, Henry J.,	Engr.	Special	Massillon
Weissbach, Walter,	Engr.	Freshman	Springfield
Weller, Orville Axline,	E. E.	Junior	Newark
Weller, Samuel Lewis,	C. E.	Sophomore	Newark
Welling, Franklin P.,	Arch.	Sophomore	Worthington
Welliver, James Everson, Jr.,	Cer.	Sophomore	Dayton
Wells, Leslie R.,	Engr.	Freshman	Troy
Wells, Paul Morley,	C. E.	Sophomore	Toledo
Wetzel, Charles Joseph,	C. E	Junior	Dayton
Weybrecht, John W.,	Engr.	Special	Alliance
Whipple, Charles Augustus,	C. E.	Junior	Athens
Whitmer, J. D.,	Cer.	Senior	Covington
Whitmore, James Bryant,	Engr.	Freshman	Akron
Will, John Joseph,	Engr.	Freshman	Columbus
Williams, Arthur E.,	Cer. S.	Special	Cleveland
Williams, Edgar Robb,	E. E.	Sophomore	New Vienna
Williams, Harry Markley,	Chem.	Senior	Westerville
Williams, Thomas Ambrose,	E.M.	Sophomore	Ironton
Williamson, Earl Clay,	E. E.	Sophomore	Cuyahoga Falls
Williamson, Harry Fred'k,	E. E.	Sophomore	Ilion, N. Y.
Wills, Ernest Joseph,	Engr.	Freshman	Niagara Falls, N.Y.
Wilson, Rodney Cushing,	M. E.	Sophomore	Fitchburg, Mass.
Wilson, Walter Warren,	M. E.	Sophomore	Selma

Name.	*Course.*	*Rank.*	*Home Address.*
Wiltsee, Charles Spinning, Jr.,	Engr.	Freshman	Hartwell
Wiltsee, Raymond Burt,	Engr.	Freshman	Hartwell
Withgott, Frank Evans,	C. E.	Senior	New Holland
Wolfe, George Watson,	Engr.	Freshman	Columbus
Wolff, Daniel R.,	Engr.	Freshman	Mansfield
Wonders, Driscoll,	Engr.	Freshman	Bellefontaine
Wonnell, Kent W.,	E. E.	Senior	Port Clinton
*Wood, Avaln Wright,	C. E.	Sophomore	Columbus
Work, Norman Ralph,	E. E.	Senior	Springfield
Worley, Scott Winston,	Eng.	Freshman	Hillsboro
Wright, Miles Ludlow,	E. E.	Sophomore	Newark
Yeager, Leo,	E. M.	Sophomore	Columbus
Yeagle, William Austin,	E. E.	Senior	Clyde
Yerger, Charles William,	E. E.	Senior	Cincinnati
Young, Clifford Bachman,	Engr.	Freshman	Stryker
Young, Merle Wilfrid,	Engr.	Freshman	Marion
Zentmeyer, Edward F.,	Chem.	Sophomore	Dresden
Zink, Joseph Albert,	E. E.	Senior	Wapakoneta
Zuber, John A.,	Chem.	Sophomore	Columbus

COLLEGE OF LAW

Name.	*Year.*	*Home Address*
Abernathy, Edw. Robt., B. Sc.,	Third	Columbus
Ahern, William Joseph,	First	Akron
Allison, Ward W.,	Special	Columbus
Armstrong, Paul G.,	Third	Bannock
Arnold, Arthur Jewell,	Second	Dayton
Asher, Ralph Hays,	First	London
Bale, Frederick G.,	Third	Westerville
Banker, Claude R.,	Third	Poast Town
Barnett, Le Roy Douglass,	First	Zanesville
Barsamian, Dicran Barsam,	Third	Marsovan, Turkey
Belknap, Harry Tyler,	Third	Perry
Bell, Clifford Ray,	First	New Castle
Bennert, Dawes T.,	Third	Columbus
Benoy, Wilbur Emanuel,	First	Columbus
Boli, Peter Paul,	Third	Hamilton
Bowman, Shadrach W.,	First	Columbus
Brandon, Archard,	Second	Columbus
Britton, Carl Herbert,	First	Howard
Brooks, William Edwin,	First	Zanesville
Bryant, David Clifton, B. A.,	First	Columbus
Burt, Russell Jeffords,	First	Columbus
Calhoun, Thomas M.,	Third	Newcomerstown
Carr, Harry Ashcraft,	Second	Dayton
Caskey, Fred Antram,	Third	Waynesville
Clare, James David,	Second	Portsmouth

* Died January, 1908.

Name.	*Year.*	*Home Address.*
Clark, Oliver Alphonso, B. A.,	First	Chattanooga, Tenn.
Cline, Grover Cleveland,	Second	Ashville
Cockley, William Barney, B. A.,	Third	Lexington
Cohn, Aaron Bertrand,	First	Toledo
Cohoe, John C.,	Second	Derry, Pa.
Colton, Ray B.,	Second	Windham
Combs, Donald Wheeler,	First	Troy
Connor, Patrick Dick,	Third	Columbus
Critchfield, Howard E.,	Third	Columbus
Cullums, Dean L.,	Third	Athens
Davis, Benjamin Hull,	First	Union City, Ind.
Davis, Golden Clyde, B. A.,	Third	Springfield
Dennis, Charles Edson,	First	Columbus
Dickerson, Jefferson Davis,	Third	Norwood
Dock, Oliver Michael,	Third	Cincinnati
Douglas, Orrin F.,	Second	Columbus
Duncan, Robert Phifer, B. A.,	Third	Columbus
Dunkle, Forest W.,	Second	Xenia
Eicher, Leonard Fredric,	Third	Columbus
Eidemiller, Harvey H.,	Second	Columbus
Engelbeck, Amos Harmon,	Third	Port Clinton
Erwin, Joseph Carl,	Second	McConnelsville
Ford, Ferd,	Second	Columbus
Funkhouser, Samuel King,	First	Harrisonburg, Va.
Gardiner, John K.,	First	Fairview
Gibsen, Ollie,	Third	Mingo Junction
Graham, Walter Hezekiah,	First	Marysville
Habermehl, John H.,	Second	Clarington
Hagerty, Howard G.,	Special	Columbus
Hammond, Clarence Isaac,	Third	Smithfield
Harris, Jay Blaine,	Second	Richwood
Hawley, Howard Earl,	Second	Columbus
Hayne, George Roy,	First	Krumroy
Heinisch, Hubert Gustave,	Second	Portsmouth
Hess, Rayon Gray,	Third	Sidney
Hoopes, Clarence A.,	First	Marysville
Houston, Harold Warner,	Second	Urbana
Huntington, Hugh,	Second	Columbus
James, David Henry,	Third	Martins Ferry
Kehrer, Victor J.,	First	Martins Ferry
Kennedy, John Kenny,	Second	Columbus
Ketcham, Victor Alvin, A. B.,	First	Corning
Kimball, Charles Ernest,	First	Woodstock
King, William Newton,	Third	Lima
Kinney, James Edgar.	First	Bellaire
Kirkendall, Emmett R.,	Sophomore	Athens
Klein, George D.,	Special	Coshocton
Kohn, Harry,	Third	Columbus
Little, Kenneth,	Third	Bradford
Logan, Richard Dougherty,	Second	Waverly
Lorentz, Roscoe Clyde,	First	Columbus
Love, Thompson Amer,	First	Columbus

Name.	*Year.*	*Home Address.*
McCleery, James Wilson,	Second	Lancaster
McCray, French,	First	Fairmount, W. Va.
McDermont, Charles Thruston,	First	New York, N. Y.
Matthews, William Mills,	Third	Dayton
Medford, Charles A.,	First	Columbus
Merchant, Clyde D.,	First	Orrville
Miller, B. Frank,	First	Urbana
Mitchell, Herbert W.,	Third	St. Clairsville
Mohler, Huston Burtch,	Special	Columbus
Moore, Barclay Welch,	Second	Cadiz
Moore, C. Ellis,	First	Quaker City
Morrow, Emmett M.,	First	Toronto
Murray, Frank James,	First	London
Nailor, Joseph Charles,	Second	Columbus
Orme, Verner Elmer,	First	Cambridge
Owen, Lloyd Gamble, B. A.,	Third	Magnetic Springs
Perfler, Arthur Joseph,	First	Columbus
Pettay, Cheever Worthington,	Third	Cadiz
Pfeiffer, Robert Edward,	First	Columbus
Ponce, Alphonso Emrile,	Third	Baliwag, P. I.
Price, Walter Allen,	First	Columbus
Purcell, Ella June,	First	Columbus
Quinby, Anna,	Special	Edenton
Reasoner, Jay Albert,	Third	Cambridge
Reiser, Frank Matthew,	First	Napoleon
Richey, Clarence L.,	First	Columbus
Rickey, Wesley Branch, B. L.,	First	Delaware
Riner, Clifford C.,	First	Eaton
Roth, Max C.,	Second	Columbus
Rowland, Oliver Frederick,	Third	Freeport
Sayre, Paul Morris,	First	West Liberty
Schantz, George, Jr.,	Special	Dayton
Schoenlaub, Emerson,	Second	Marion
Sears, Leslie,	First	Chillicothe
Secrest, Fred Miller,	Second	Chillicothe
Seidel, John F.,	First	Bowers Station, Pa.
Sherick, Clyde Cea,	First	Ashland
Smith, Earl E.,	First	Columbus
Smith, Frank O.,	First	Charleston, W. Va.
Smith, Howard Stanley,	First	Dayton
Smith, Orville, M. A.,	Second	Napoleon
Snodgrass, Harry Williams,	First	Mechanicsburg
Snow, Robert B.,	First	Athens
Sperry, Arthur Leon,	Third	Ashley
Stimpson, Charles Logan, B. A.	First	Cleveland
Stoddart, John Cole,	First	Columbus
Thompson, George Edgar,	Special	Columbus
Tilton, Wesley Earle,	First	Marysville
Ward, Arthur Byron,	Third	Columbus
Ward, Joseph Leroy,	Special	Lancaster
Warrick, Elmer J.,	Second	Clarkson
Watson, James Harrison, B. A.,	First	Columbus

Name.	*Year.*	*Home Address.*
Weikart, Morris Ray,	Second	Springfield
Wells, Ashford Bruce,	Second	Nelsonville
Wertz, Dwight Elmore,	First	Dalton
White, Cassius O.,	Third	Montpelier
Williams, James Hanson,	First	Columbus
Williams, Walter J.,	Third	Union City, Tenn.
Wilson, Henry James, B. Ph.,	Third	Cleveland
Worline, Hiram Winfield,	Second	Delaware
Ziliox, Leon Jacob,	Second	Hamilton

COLLEGE OF PHARMACY

Name.	*Course.*	*Rank.*	*Home Address.*
Aiken, Arthur,	Phar. S.	First	Altoona, Pa.
Apt, Otto Holmes,	Phar. S.	Second	Mt. Gilead
Arnold, Elmer Irvin,	Phar. S.	Second	Columbus
Balian, Sarkis M.,	Phar. S.	Second	Amasia, Turkey
Barnes, Berlin,	Phar. S.	Second	Dayton
Berger, Joseph Carl.	Phar. S.	Second	Columbus
Blum, Robert,	Phar.	Freshman	Portsmouth
Brown, Clarence Mert,	Phar.	Freshman	Columbus
Buck, Frank Hughes,	Phar. S.	First	Columbus
Burch, John Arthur,	Phar. S.	Second	Dresden
Calhoun, Harry M.,	Phar. S.	First	Springfield
Carlile, James R.,	Phar.	Freshman	Columbus
Carson, Wilbur Edison,	Phar. S.	First	Columbus
Court, Robert B.,	Phar. S.	First	Mantua
Covert, Benjamin H.,	Phar. S.	First	Loudonville
Cullen, James W.,	Phar.	Freshman	Hamilton
Davis, Arthur Richard,	Phar. S.	Second	Jeffersonville
Davis, William Elwood,	Phar.	Senior	Fremont
Dunn, Harry Arthur,	Phar.	Freshman	Sandusky
Evans, Christmas,	Phar. S.	Second	Pomeroy
Farber, Walter Harmon,	Phar. S.	First	Bellville
Feller, Charles Walter,	Phar. S.	Second	Navarre
Fickardt, George Hunter,	Phar.	Freshman	Circleville
Funk, John R.,	Phar. S.	Second	Hamilton
Funk, Leo William,	Phar.	Senior	Chesterhill
Furney, Claude L.,	Phar. S.	Second	Kenton
Giffin, Dwight L.,	Phar. S.	First	Mansfield
Given, Kenneth J. C.,	Phar. S.	Second	Chandersville
Griswold, Chauncy E.,	Phar.	Freshman	Elyria
Hart, Grover Foor,	Phar.	Freshman	Newark
Huffsey, Mail Irving,	Phar. S.	Second	Sycamore
Hughes, William A.,	Phar. S.	First	Columbus
Hutsinpiller, Chas. Laiblin,	Phar.	Freshman	Gallipolis
Johnston, Arthur F.,	Phar.	Freshman	Fremont
Jones, Fred Emerson	Phar. S.	Second	Cardington
Kauffman, Myron B.,	Phar.	Sophomore	Columbus
Landrum, Francis Harold,	Phar.	Freshman	Columbus
Lucas, Charles Herbert,	Phar. S.	First	Circleville

Name.	*Course.*	*Rank.*	*Home Address.*
McAllister, Wallis K.,	Phar. S.	Second	Morristown
McCormick, Thomas,	Phar. S.	First	Mt. Vernon
McElroy, Wm. Harrison,	Phar. S.	First	Newcomerstown
Main, Ray,	Phar.	Sophomore	Columbus
Mercer, James M.,	Phar.	Freshman	Columbus
Mohler, Bruce M.,	Phar.	Special	Fremont
Morlock, Edward A.,	Phar. S.	First	Sidney
Pearse, Bernard R.,	Phar.	Special	Columbus
Peters, Otto,	Phar. S.	Second	Decatur, Ind.
Pike, George Walter,	Phar. S.	First	Lisbon
Pratt, Harley O.,	Phar. S.	First	Johnstown
Putt, Earl Berger,	Phar.	Special	Youngstown
Reynolds, Glide A.,	Phar. S.	First	Greenwich
Shaffer, Henry Rockwell,	Phar.S.	First	Columbus
Shinn, Leon Powell,	Phar. S.	First	Huron
Shipps, Paul Spencer,	Phar. S.	First	Zanesville
Smith, James Calvin,	Phar. S.	First	Athens
Snyder, John William,	Phar. S.	First	Belle Vernon, Pa.
Stevenson, Arthur,	Phar. S.	First	Mt. Blanchard
Swigart, Michael George,	Phar. S.	First	Dayton
Walker, Carl Stinebaugh,	Phar.S.	Second	Sycamore
Welsh, Grover,	Phar.	Freshman	New Middletown
Wilson, James B.,	Phar. S.	Sophomore	Columbus
Yount, Carl Dyce,	Phar. S.	First	Marysville
Ziegler, Paul Clayton,	Phar. S.	Second	West Sonora

COLLEGE OF VETERINARY MEDICINE

Name.	*Rank.*	*Home Address.*
Abrams, Guy,	First	Moscow
Adams, Willard Gilcrest,	Third	Akron
Altman, Frank Elbert,	Third	Felicity
Anderson, Leo,	First	Columbus
Andrews, Alfred,	First	Batavia
Aponte, Felix L.,	First	Lares, Porto Rico
Baker, Eustace T.,	Second	Dayton, Pa.
Beach, Burr A.,	Second	Geneva
Beck, Walter H.,	Third	Sherrard, W. Va.
Benscholter, Lewis J.,	Third	Grand Rapids
Bias, James Hendrix,	First	Vicksburg, Miss.
Boehme, Walter G.,	Third	Batavia
Bond, Ralph Emerson,	First	Columbus
Bradford, John,	First	Columbus
Bradley, George H., Jr.,	First	Cincinnati
Bradley, Harvey Duckwall,	First	Felicity
Brady, James T.,	Second	Ithaca, N. Y.
Brandewie, William John,	Second	Sidney
Brobeck, Jacob Centennial,	Third	Columbus
Broerman, Alvin,	Second	New Bremen
Bryant, Harry Hoadley,	Second	Sheboygan Falls, Wis.

Name.	*Rank.*	*Home Address.*
Burns, Arthur Clayton,	First	Cuero, Texas
Carballeira, Canellas Ignacio,	First	Syracuse, N. Y.
Connell, Carl,	First	Pataskala
Considine, James B.,	Second	Watkins, N. Y.
Cook, Chauncey E.,	Second	Harrod
Cook, William Grover,	First	Findlay
Cottrell, Ira,	First	Hicksville
Cowgill, Thomas Elwood,	Second	Delaware
Cullen, James T.,	First	Watkins, N. Y.
Decker, Charles H.,	First	Columbus
Denman, Clarence B.,	Second	Hanover
Dunn, Lewis J.,	Special	Cleveland
Durham, Edgar Presley,	Third	Sharon, Tenn.
Eckman, Albert William,	First	Columbus
Edgerly, Perley,	Third	Columbus
Elsey, Mark,	Second	Plain City
Eno, Burtrand Junius,	Third	Essex, N. Y.
Epple, Lewis Edwin,	Third	Pomeroy
Evenson, Harry,	Second	Wahpeton, N. D.
Ewing, Harry Eastman,	Second	Columbus
Fairbank, Harry H.,	Third	Urey, Penn.
Farber, Harry,	First	Pataskala
Farmer, Albion Calvin,	First	Brighton, Vt.
Fogle, Allan,	First	Columbus
Fontaine, Frank C.,	First	Galveston, Texas
Foos, Edgar,	First	West Manchester
Force, Benjamin Franklin,	First	Akron
Foster, T. J.,	Second	Thornville
Frame, James Donard,	Second	Newcomerstown
Fraser, Alexander G.,	Second	Columbus
Fry, Russell Warren,	First	Bettsville
Garcia, Luis Ibarra,	First	Havana, Cuba
Garrahan, Lorenzo P.,	Third	Buenos Aires, A. R.
Gehres, Martin,	First	Wren
George, Walter,	Third	Pittsburg, Pa.
Gillie, Peter,	First	Ft. Wayne, Ind.
Gittins, Robert Henry,	First	Columbus
Goldbrown, Jacob,	Third	Boucarest, Roum.
Goodlive, Albert,	First	Junction City
Gow, Ronald M.,	Second	Cadillac, Mich.
Graber, Wynter C.,	Second	Dalton
Grant, Napoleon J.,	First	Louisville, Ky.
Green, Harry L.,	First	Somerset
Griner, Harry Garfield,	First	Amanda
Gruber, John T.,	Third	Marion
Handley, John Milton,	Third	Thornville
Harris, Ernest D.,	Third	Harveysburg
Hartman, Clark Franklin,	First	Bellevue
Hays, Clark H.,	Third	Columbus
Hoffmire, Colenzo H.,	Third	Archbold
Hover, Elzie V.,	First	Harrod
Hyde, David C.,	First	Sullivan

Name.	*Rank.*	*Home Address.*
Jansen, Andrew M.,	First	Harrison
Jewell, Lisle A.,	First	Kinsman
Jewell, Lloyd C.,	First	Kinsman
Johns, Clarence A.,	First	Medina
Johnson, Paul,	Third	Tippecanoe City
Jollie, Malcolm Richard,	First	Jefferson
Jones, Elbert,	First	Marietta
Jordan, George Selwyn,	Second	Warner, N. H.
Julien, Albert H.,	First	Columbus
Kappelman, Fred William,	First	Plymouth, Wis.
Keselring, Ferne,	Third	Euphemia
Killian, Bertram Snow,	First	Everett, Mass.
Lambert, Fousa Allan,	First	Kenton
Larzelere, Harry D.,	Second	Roseville
Lichtenwalter, Harry,	Third	Smithville
Lockemer, Harry M.,	First	Mayfield
Lohr, McEldin,	Third	Columbus
Long, Earl F.,	First	Kenton
Lowe, Clifton D.,	First	Blanchester
McCarty, William Timothy,	First	Columbus
McMaster, Harry W.,	Third	Middleport
Maxwell, Henry Greenleaf,	First	Kansas City, Kan.
Meyerhoeffer, Joseph S.,	First	Dayton, Va.
Miller, Aaron Dale,	First	Alexandria
Miller, George O.,	First	Richwood
Miller, Howard W.,	Third	Alexandria
Miller, John Mateer,	Special	Avella, Ind.
Miller, Paul Wallace,	First	Cuyahoga Falls
Moon, Orland J.,	Second	Sabina
Morris, Harry,	First	Bloomingburg
Moyer, Frank L.,	Third	Carey
Murphey, Howard Sylvester,	Third	Avondale
Musser, Arthur Blaine,	Second	Wapakoneta
Newcomb, Raymond W.,	First	Fitchburg, Mass.
Nielson, John,	First	Copenhagen, Denmark
Norris, W. Harry,	Second	Chilo
Nutt, Robert H.,	Second	Westerville
O'Harra, William G.,	First	Alton
O'Toole, Stephen,	Third	Shawnee
Palmer, Merrill,	Second	Pataskala
Payne, Walter Willard,	First	Mitchell, Wis.
Paz, Alberto Jacobo,	Third	Buenos Aires, A. R.
Pierce, Frank,	Third	Indianapolis, Ind.
Pierce, George Harold,	Second	Duvall
Porter, Earl Wayne,	First	Republic
Porteus, Robert,	First	West Lafayette
Powell, Royce R.,	Second	Columbus
Ring, Dewitt T.,	First	Martin's Ferry
Roberts, Harry M.,	First	Washington, C. H.
Rodriguez, Camito A.,	Third	Concordia, A. R.
Sanner, Lawson A.,	First	Nelsonville
Schalk, Arthur F.,	Third	Hamilton

Name.	*Rank.*	*Home Address.*
Schoonover, Roy,	First	Findlay
Schroeder, Erwin Frank,	First	Industry, Texas
Shaeffer, Frank A., Jr.,	First	Lancaster
Shreve, Charles Gray,	Second	Martins Ferry
Skidmore, Chester,	Second	West Mansfield
Slater, Leroy E. McKay,	First	Columbus
Slyh, Herbert Allen,	First	Columbus
Smith, George, Jr.,	First	West Unity
Smith, William A.,	Second	Pataskala
Snook, James Howard,	Third	South Lebanon
Southworth, Irving D.,	First	Batavia
Spindler, John L.,	Second	Ashville
Sterling, Frederick C.,	First	Canton
Stockler, Bernhard J.,	Third	Foesany, Roumania
Swinehart, Dorsey Meade,	First	Somerset
Tanner, Clarence Benson,	First	Columbus
Tawney, Charles L.,	First	Wooster
Thomson, Rufus E.,	Third	Austin
Trehearne, Rosser,	First	London
Turner, John Elmer,	Second	Lima
Turney, Carl Douglass,	Second	Louisburg
Varas, Juan, Jr.,	First	San Juan, P. R.
Wagner, Clarence Lee,	First	Columbus
Waite, Harry N.,	First	Tyrone, Pa.
Warren, Winworth Tuck,	First	Lewiston, Maine
Waters, Fred C.,	First	Columbus
Way, Rexford D.,	Third	Northfield
Weaver, Gilbert Smith	Third	Vienna Cross Roads
Wells, George Briggs,	Third	Hancock, Mass.
Westerheide, Edward E.,	First	Minster
Whitmer, Homer C.,	Second	Thornville
Wilson, Gilbert,	First	Columbus
Wilson, John Oscar,	Third	Lake Park, Minn.
Woolley, Bruce D.,	First	Athens
Wright, Charles M.,	Third	Sardis
Zimmer, Fred,	Second	Williamsburg
Zimmerman, Harry H.,	First	Bradford

SUMMER TERM

1907

Name.	*Home Address.*
Albright, Alan R	Columbus
Alspach, Erle B	Newark
Andrews, Fay M	Columbus
Anthony, Alice Isabel	Columbus
Arbogust, Charles O	Xenia
Ashbrook, Anna	Milo
Ashton, Lulu M	Reynoldsburg
Ater, Justin M	South Bloomfield
Augspurger, Victor H	Kyle
Austin, Robert O	Columbus
Avisado, Pastor	Vigan, P. I.
Barnett, William Martin	Veroy, Ind.
Barr, Ralph L	Lancaster
Barsamian, D. B	Columbus
Bascom, Philip P	Lockwood
Bell, Harry L	Bradford
Bell, Howard H	Columbus
Beyer, W. A. L	Arlington
Biggert, Grace	West Jefferson
Black, Thurman	Shelby
Black, Veral	Milo
Blose, Gertrude Koehne	Columbus
Bornhorst, A. H	St. Marys
Bonic, Fred V	Ostrander
Bowen, Mollie F	St. Marys
Bower, Katherine	Mineral City
Bower, Lewis F	Kingston
Bowman, Millard K	Columbus
Boylan, Marcella	Columbus
Brawley, Anna Marie	Cincinnati
Breese, Hazell	Columbus
Bricker, Garland A	New Holland
Brightman, Harrison M	Cleveland
Brown, Mertis	Plainfield, Ind.
Browne, Loutie M	Williamsport
Burlew, Frances C	Olive Branch
Burton, Ella M	Columbus
Bussert, Edgar C	Amanda
Campbell, Zula B	Wauseon
Campillo, Ricardo del	Cordoba City, A. R.
Caris, Ivan B	Cardington
Chamberlain, Florence	Columbus
Chambers, Mrs. Jennie	Columbus
Class, Thomas J	Spencerville
Clawson, James F	Hamilton
Clements, Jerry R	Canal Winchester
Cobb, Fannie C	Charleston, W. Va.
Cockins, Laura Grace	Columbus

Name.	*Home Address.*
Coe, Harry Dean	Columbus
Collopy, Bertha A	Williamsport
Converse, Julia E	Plain City
Cook, Nellie A	Parkersburg, W. Va.
Corbin, Alma	Columbus
Coulson, Howard A	Malta
Crane, J. Claire	Sunbury
Crane, Nellie M	Sunbury
Crouse, D. Wilson	Atchison, Kan.
Cullen, James W	Hamilton
Daugherty, Nelle	Columbus
Davis, James Monroe	Somerset
Davis, Mary Virginia	Clintonville
Davy, Lacie B	Lockbourne
Denig, Elizabeth Seitz	Columbus
Denman, Louis H	Granville
Dill, Stanley E	Pemberton
Dillingham, Abbie	London
Dorchester, Paul	Pittsburg, Pa.
Dornbusch, Louise M	Dayton
Drackett, Philip W	Cincinnati
Drake, Emma D	Columbus
Drake, Myrta Olelia	Columbus
Duckwall, Charles S	Dayton
Ebersbach, Walter F	Pomeroy
Ehrman, George L	Chicago
Eisenbeis, Bertha Webb	Columbus
Eisenbeis, Mary	Columbus
Ellis, Charles J	Greenfield
Emswiler, Harold W	Kirkersville
Eswine, Harry Edgar	Etna
Evans, John Comstock	Pataskala
Evans, Perry	Columbus
Ewing, Max Clark	Centerville
Falter, Ida K	Columbus
Fawcett, Charles F	Salem
Feiock, Charles G	Lewisville
Ferguson, Henrietta	Columbus
Fischer, Dorsie E	Columbus
Foster, William A	Columbus
Frank, Clarence H	Columbus
Gallen, Helen M	Columbus
Garcia, Rufino	Magsingal, P. I.
Garhart, Madge E	Columbus
Gascoigne, George	Toledo
Gilkey, Helen	Clintonville
Giveigian, S. V	Sarna, Bulgaria
Goodall, Margaret	Ironton
Gothlin, Jean	Columbus
Greenamyer, Merle Reed	Leetonia
Greer, Allen James	Columbus
Gregg, Albert S	Lorain

Name.	*Home Address.*
Grimes, Fred L	Sandusky
Groner, Clyde Sterling	Leetonia
Hadsell, Harry Irvin	Clintonville
Haeseler, Anne	Springfield
Hagerman, William Roy	Columbus
Hague, Claire Kimball	Wilmington
Hale, Kenneth	Columbus
Hall, Herman	Plain City
Hall, Mary E	Galena
Hamblin, Earle W	Kingsville
Harbargar, Sada A	Columbus
Harper, Grace M	Newport, Ky.
Harris, Clarence E	Wilmington
Harvey, Leonard E	Savannah
Haungs, Katie M	Hamilton
Herriff, Amy I	Kent
Hines, Delbert Leroy	Duvall
Hinman, Helen J	Columbus
Hixson, Grace	Wellington
Hizey, Alice	Pickerington
Hoberg, Harry H	New Bremen
Hoffmire, Chancy Burr	Cardington
Hollister, Mary T	Galion
Homes, Grace E	Columbus
Hoskinson, Clyde W	Pataskala
Hoursouripe, Juan	Las Heras, A. R.
Houston, Grace	Columbus
Howard, Harry W	Lancaster
Howell, Alvah Alexander	Waynesfield
Howell, Orin E	Jackson
Hyde, Katybel	Columbus
Jackson, Clifford W	Columbus
Jewett, Kate	Worthington
Johnston, Brandt G	Hopewell
Jones, Walter William	Hilliards
Judd, May Edith	Columbus
Kellerman, Maud	Columbus
Kellman, Sydney	Barbados, W. I.
Kendig, F. A	Osborn
Kesanoshin, Otsuka	Tokayo City, Japan
Kidwell, Amy Lee	Columbus
Kile, Merton	Groveport
Kinnear, R. E	Columbus
Knight, Harry C	Columbus
Knight, Margaret A	Columbus
Chew, Kok Hean	Penang, Malay Pen.
Koons, George H	Columbus
Kutz, Mabel	Milo
Lafferty, Samuel J	Columbus
Laizure, Grant A	Groveport
Lake, Charles H	Granville
Lambert, W. O	Lisbon

Name.	*Home Address.*
Landrum, Francis Harold	Columbus
Lane, Kantoh	Canton, China
Latimer, Mrs. Mary Helser	Plain City
Layton, Clifton M	Summit Station
Leahy, Charles Lee	Columbus
Lentz, Florence	Marysville
Leonard, T. F	Mt. Sterling
Lantz, Homer B	Massillon
Leckliter, Grace	Worthington
Legg, Karl W	Columbus
Lemen, Nelson	Catawba
Lewis, Robert M	Cleveland
Liggett, Odell	Marysville
Lopez, Saturnino	Gapan, P. I.
Lucas, Howard Johnson	Columbus
Ludwig, William F	Marietta
Lutz, Mrs. Laura B	Columbus
Lynch, Elizabeth	Greenville
McAllister, Harold Alanson	Columbus
McBeth, Ira Guy	Georgetown
McBroom, Jessie	Glouster
McClung, Harvey F	Columbus
McCoy, Ethel S	Wilmington
McFadden, C. Oscar	Georgetown
McGrath, Frank	Columbus
McKee, Laura	Martinsburg
Macke, Marcella	Cincinnati
Maclean, Margaret R	Columbus
Mahaffey, Erwin Vernon	Columbus
Mahaffey, Evan L	Columbus
Makepeace, Lilian	Columbus
Makepeace, Mary Virginia	Columbus
Marshall, John Elbert	Cincinnati
Martin, Arthur Emil	Hamilton
Martin, Mary	Columbus
Martin, Thomas Adams	Commercial Point
Mason, Jesse S	Etna
Massey, Herbert N	Columbus
Matthaes, Harry Rowland	Derby
Mercer, James M	Columbus
Michel, Christy William	Columbus
Miller, Chalmers C	Columbus
Miller, Edgar A	Wagram
Miller, Perry C	Columbus
Miner, Cora A	Columbus
Moody, Frank Wilson	Augusta, Maine
Moore, Charles T	Columbus
Morris, Samuel	Bloomingburg
Morrow, Lydia	Columbus
Mulligan, Mary S	Columbus
Newton, E. Jennie	Dayton
Nichols, Rell Hunt	Hanover

Name.	*Home Address.*
Norton, William Herman	Columbus
Nye, Katherine Parr	Marietta
Oberlin, Mary Lavinia	Massillon
Ojeda, Augustin M	Buenos Aires, A. R.
O'Kane, Elizabeth	Columbus
Olnhausen, Charlotte	Columbus
Oman, Roy H	Ashville
Osborn, Thomas Earl	Summit Station
Owens, Belle	Washington C. H.
Park, Clyde William	Columbus
Partridge, Bert	Columbus
Pence, Forrest Kiger	Columbus
Pflieger, Alice	Columbus
Pierce, Glen	Columbus
Pierson, Jane D	Pataskala
Pinkerman, Jasper	Jelloway
Piper, Kate	Marysville
Plumb, Winthrop G	Columbus
Polan, W. G	Jackson Center
Pollock, James Arthur	Waterville
Portz, Grover C	Newcomerstown
Poulson, Olive W	Orient
Powell, Edith Belle	Bidwell
Powell, Homer K	Findlay
Price, W. A	Harleysville
Prose, Nellie	West Jefferson
Pruner, Elizabeth D	Dayton
Purcell, Ella June	Columbus
Rea, Abel S	Bellefontaine
Reed, Clyde S	Columbus
Renz, Emilie	Columbus
Riter, Nicholas John	Ironton
Roberts, Cora Ruth	Columbus
Robinson, C. C	Hilliard
Robinson, Mayte A	Columbus
Ronan, Wilbert Cathmore	Columbus
Roney, Nelle	Marysville
Ross, John	Columbus
Roth, Max	Mingo Junction
Rownsavell, Eugenie H	Columbus
Ruppersberg, Emma Anna	Columbus
Ryder, Isaac	Lewisburg
Sample, Naomi	Perrysville
Sanford, Roy E	Vickery
Sawyer, Binna	Lockbourne
Sawyer, Zona E	Lockbourne
Schaefer, Carl A	Pomeroy
Schear, Edward W. E	Westerville
Scheiderer, Augusta	Marysville
Schiltz, Leo A	New Berlin
Scott, Archie Hammond	Columbus
Sealock, William Elmer	Groveport

Name.	*Home Address.*
Segovia, Desiderio M	San Jose, Paraguay
Shade, Ernest F	Bath
Shadle, Albert Ray	Lockbourne
Shaw, Lila de Wolfe	Ironton
Shigley, Anna B	Jamestown
Sicha, Frank, Jr	Cleveland
Sin Clair, Clayton F	Agosta
Simmons, George Edward	East Monroe
Smith, Frances	Columbus
Smith, Harold Sidney	Columbus
Smith, John E	Vandalia
Smith, Muriel	Columbus
Sourek, Joseph F	Copley
Stephens, Mary E	Columbus
Stilwell, Viola E	Columbus
Stout, Irvin G	Fremont
Sullivan, Margaret Mary	Columbus
Swickard, Olive E	Columbus
Talbot, John Sherman	Carroll
Tao, Drohan Daqueen	Fan Cheng, China
Thomas, Chloen	Columbus
Thomas, Clement Eugene	Arcanum
Thomas, Katie	Dublin
Thomas, Mrs. Nellie Geneva	Arcanum
Thompson, Bessie Agnes	Columbus
Thompson, Edna	Washington C. H.
Thompson, Lorin	Columbus
Todd, Lester Adrian	Cleveland
Vale, F. F	Washington College, Tenn.
Vallance, Howard F	Columbus
Van Ness, Zoa	Columbus
Wagner, Arthur Roy	Troy
Wagner, Jessie Otto	Bucyrus
Ware, Julia	Columbus
Washburne, George A	Columbus
Watt H. Houston	Barnesville
Weatherwax, Frank N	Howard
Weber, August	Dublin
Weller, Orville A	Newark
Wells, George B	Hancock, Mass.
Werner, Roy G	Columbus
Wessels, Mrs. Leta Ruth	Portland, Ore.
Wigginton, Ellsworth H	Plain City
Williams, Bertha	Columbus
Williams, Elizabeth	Columbus
Williams, Lillian M	St. Marys
Williams, Pearl Eva	Cardington
Willoughby, Mary Elizabeth	Columbus
Wilson, Bernice	Bowling Green
Wilson, Besse	Marengo
Wilson, John Langford	Marengo
Wyly, Lilian Alice	Granville
Zuber, John A	Columbus

LAKE LABORATORY

1907

Name.	*Home Address.*
Baker, Eustace T.	Dayton, Pa.
Brigman, Lemuel Ruevell.	Newport, Ky.
Brookover, Mrs. Charles.	Akron
Castle, Alfred Walkins.	Ashtabula
Doren, Jane Macartney, B. A. (Oberlin).	Columbus
Fisher, Calvin K.	Haines, Ore.
Foltz, Harry Lee, B. L. (Kenyon).	Lima
Foote, Earl Harrington.	Medina
Green, Stephen N.	Medina
Hart, Stanley S.	West Alexandria
Heilman, Karl J.	Tiffin
Henninger, Walter F.	Tiffin
Herms, Lilly Magly.	Columbus
Hundertmark, Roy Edward.	Geneva
Jackson, Theron Skeels.	Cleveland
Jennings, Otto E., B. Sc. Agr.	Pittsburg, Pa.
Jewett, Howard Herman, B. A. (O. W. U.).	Celina
Nosker, Charles A., B. S. (Antioch).	Yellow Springs
Risser, Louis David.	Pandora
Shira, Don D.	La Rue
Smith, Ethel Marie.	Rome
Stockberger, Warner W., B. S. (Denison), Ph. D. (George Washington)	Washington, D. C.
Thompson, Joseph Edmund	Newport, Ky.
Wildermuth, Vernon Leroy.	Groveport
Wilson, Carl B., A. B. (Oberlin).	Oberlin
Wilson, Mrs. Genevieve.	Oberlin

WINTER COURSE IN AGRICULTURE

1908

Name.	*Home Address.*
Ackley, Clyde	Caldwell
Agler, Jackson P	Columbus
Anderson, Alfred B	Mt. Vernon
Annesser, John George	Columbus Grove
Ashbrook, Price William	Amanda
Atherton, Thomas H	Newark, Ill.
Bacon, B. E	Chagrin Falls
Bailey, Arvine Edward	Beloit
Bain, George S., Jr	Medeira
Baker, Merle	Arlington
Barth, Clifford W	New Bremen
Bartter, Homer Clarence	West View
Battee, Arthur	Alexandria
Beam, Thomas J	Ansonia
Beck, Charles Lawson	Franklin
Benham, James Boyd	Lebanon
Berry, Almer C	North Bloomfield
Blue, J. Corwin	London
Bowen, Wilfred L	Canal Winchester
Bowman, Derr	Chatham
Bradley, Harvey Duckwall	Felicity
Brawley, Robert Glenn	Amesville
Brim, Lloyd James	Latchie
Brotherton, Charles Frederick	Ashtabula
Brumbaugh, James	Hartville
Bruskotter, John H	Ft. Jennings
Bundy, C. Ellis	Barnesville
Campbell, Harley S	Edison
Carlo, Chester A	Van Wert
Castro, Arturo	Buenos Aires
Caywood, George Washington	Somerset
Chambers, Ben Levi	West Toledo
Chambers, Irwin Hyde	Seville
Clark, Harry R	Wilmington
Clark, Russell D	Plymouth
Clawson, Miles	Fredericktown
Clum, Elza	Ada
Cockrell, Roy	Burbank
Coffman, Boyd	Farmersville
Croft, William C	
Custis, Heber W	Wilmington
Deubner, Walter C	Greenville
Dickman, J. Ray	Defiance
Dike, Clarence L	Chesterhill
Disher, Frank Carlton	White House
Dorsey, Clarence	Bluffton
Dorsey, Clyde	Bluffton
Earley, Everett	Wilmington

Name.	*Home Address.*
Elbon, Fred	Waynesville
Evans, James C	Elmwood
Eveland, George Raymond	Miamiville
Faber, Melvin O	Bryan
Fair, Clyde Harrison	Shiloh
Fawcett, Shirley	Zanesfield
Ferguson, Glenn Amos	Fairpont
Ferris, Ernest	Blue Ash
Fiser, James Bruce	Napoleon
Fox, Charles J	Ashland
Frederick, Roy Edwin	Poland
Freeman, John Albert	Tippecanoe City
Frick, Charles Webster	Wooster
Geissman, John E	New Washington
Gerber, Stanley A	Hamilton
Giffen, Frank Paxton	Martins Ferry
Gill, William Payne	Port Clinton
Graves, J. Spencer, Jr	Sandusky
Greenlees, J. W	Vincent
Gregg, Cepter	Sunbury
Guinther, Cornelius G	Galion
Hahn, Conrad Carl	Huron
Hansbarger, Frank H	Peterstown, W. Va.
Hansberger, R. D	Columbus
Hawk, Howard	Mechanicsburg
Helmkamp, Ferd George	Delphos
Herron, Howard E	Chandlersville
Hickle, Harry Hayes	Mt. Blanchard
Hickman, William Arthur	Canonsburg, Pa.
Himehigh, Charles	Barberton
Hindman, Erwin L	Hollidays Cove, W. Va.
Hines, Harley Clayton	Ashville
Hopper, Walter Harold	Lawrence, Pa.
Howe, Henry Edward	Holgate
Hulburt, Ralph R	Seville
Hummon, Jesse Merle	Pandora
Hyslop, Earl	Springfield
Johnson, William A	Plants
Johnson, William Noble	Findlay
Judy, Harry Eugene	Germantown
Kennedy, Donald Clair	Scio
Kirn, Christopher Frederick	Lancaster
Kline, George C	South Salem
Knoop, James Ross	Casstown
Kranter, Elmer	Bucyrus
Krohn, Raymond	McClure
Kuhl, Harry Wilfred	Huron
Kuhlman, Reinhart E	Vermillion
Landis, Everett Corwin	Rossburg
Lane, Joe	Bowling Green
Lee, Edwin Gregory	Hudson
Leimenstoll, Daniel E	Bucyrus

Name.	*Home Address.*
Lochtefeld, Ben	St. Rosa
Luse, Ernest Douglas	Springfield
McCall, Earl M	New Concord
McClellan, Roy W	Trebeins
McConnell, William R	Rittman
Mack, Harry George	Leipsic
Marshall, John Moore	New Concord
Martin, David Edward	Dawn
Mills, Joel Bertram	Marysville
Moherman, Solomon F	Ashland
Moody, Martin	Glouster
Morgan, Wilber P	St. Clairsville
Morrison, Irwin Elisha	Chillicothe
Mount, Edgar G	Alexandria
Mowls, Lee H	Waynesburg
Myer, Clarence A	Beidler
Naylor, Lewis G	Barnesville
Neel, Baxter Lewis	Gap Mills, W. Va.
Neer, Ben Elmo	Mechanicsburg
Niehans, Carl	Genoa
Nuding, Grover Stanley	Mendon
Nutt, Edwin Wilson	Spring Valley
Oates, Earl E	Forest
Oldham, Morton C	Reynoldsburg
Palmer, Gale	Van Wert
Peer, Harry Rohland	Mt. Cory
Peters, Archie M	Ashville
Peters, Hartley Oakley	Duvall
Peters, Horace M	Amanda
Pitkin, Frank M	Westerville
Pool, Ira Garfield	Upper Sandusky
Porteous, James Paul	East Palestine
Pray, James Lansing	Toledo
Queen, Allen Floyd	Fredericktown
Reiterman, Lloyd	Chillicothe
Ribald, O. Burton	Hartville
Rice, Harry	Johnstown
Ridings, Earl	Cozaddale
Rife, John Wallace	Cedarville
Riley, Robert Ashley	Celina
Rimelspaugh, Edward	Fremont
Romig, Theophilus Scott	Uhrichsville
Root, John Allen	Austinburg
Rupright, Lewis P	Marysville
Rutlenik, Benjamin J	Cleveland
Schermerhorn, John Harrison	Brimfield, Ind.
Schieber, Irvin William	Bucyrus
Schiefer, Moody L	Sycamore
Shank, Leigh Holmes	Dayton
Shanower, W. C	Burton
Sharp, Frank C	Kingston
Shelton, Mark Dayton	Leetonia

Name.	*Home Address.*
Sherman, Ray	Condit
Shilts, Walter	Millersburg
Siman, Louis	Brunswick
Smith, Clifton Orlando	Ashville
Smith, Clyde E	Basil
Smith, Willard	Burbank
Smithson, Wilshire Roy	Hillsboro
Starbuck, Lewis C	Bridgeport
Stevens, Harry G	Orwell
Sutton, Charles Edmond	Zanesville
Tabler, Sumner	Napoleon
Tangeman, Louis	New Bremen
Taylor, Frank Paul	Reynoldsburg
Theaker, John Greenlee	Bridgeport
Thompson, George Henderson	Jewett
Thomson, Allen E	Hamilton
Thurston, Ray Wilson	Delaware
Tweed, Hugh Ellis	Ripley
Vandenbark, Weldon G	Zanesville
Van Gundy, Harrison W	Sycamore
Walbolt, Fred Harrison	Waterville
Walborn, Earl	Van Wert
Waldron, Omer C	McArthur
Watkins, Izates George	Radnor
Weeber, Fred C	Wapakoneta
Wellman, Arthur G	New Knoxville
Wert, Warren	Rockford
Wilkerson, Albert J	Oregonia
Wilkinson, Darwin	North Royalton
Williams, George Pugh	Radnor
Williams, Leon E	Dayton
Wilson, Carl Virgil	Ashland
Windan, Clayton	Sandusky
Winkle, S. R	Mowrystown
Withgott, Reese Bennet	Kingston
Wolfe, Leo	Centerburg
Wollam, Benson	Dola
Workman, Harley J	Buckeye City
Zeis, Floyd	Tiffin
Zimmerman, Karl	Gnadenhutten

SATURDAY COURSES IN COLLEGE OF EDUCATION

Name.	*Home Address.*
Andrix, Edith	Columbus
Beard, Mary Violet	Columbus
Blue, Franz S	Columbus
Denig, Elizabeth Seitz	Columbus
Fischer, Dorsie E	Columbus
Giles, L. W	Galloway
Gilkey, Helen	Columbus
Gruver, Harry S	Worthington
Hines, Delbert Leroy	Duvall
Hypes, Cora	Roanoke, Va.
Kuehner, A. Alma	Columbus
Miner, Cora A	Columbus
Moore, Charles Thomas	Columbus
Osborn, Carl R	Summit Station
Osborn, Earl T	Summit Station
Pflieger, Alice	Columbus
Piper, Kate	Marysville
Smith, Katharine Platt	Columbus
Thompson, Louhattie	Columbus
Warren, Milton Charles	Groveport

GENERAL SUMMARY

College of Agriculture and Domestic Science—		
Graduate Students	3	
Undergraduates	308	
		311
College of Arts, Philosophy, and Science—		
Graduate Students	53	
Undergraduates	630	
		683
College of Education—		
Graduate Students	2	
Undergraduates	26	
		28
College of Engineering—		
Graduate Students	2	
Undergraduates	877	
		879
College of Law		138
College of Pharmacy		63
College of Veterinary Medicine		162
Total		2264
Names counted twice		8
Net total		2256
Lake Laboratory, Summer 1907	26	
Summer Shopwork, 1907	80	
Summer School, 1907	308	
Summer Civil Engineering, 1907	11	
Total in Summer work		425
Winter Course in Agriculture		193
Saturday Courses in College of Education		20
Total		2894
Names Counted Twice		208
Grand Net Total		2686

SUMMARY BY STATES AND COUNTRIES

Argentine Republic	10	Minnesota	2
Arkansas	1	Mississippi	2
Australia	1	Montana	1
Bulgaria	1	Nevada	1
California	3	New Hampshire	2
China	2	New Jersey	2
Colorado	3	New Mexico	1
Connecticut	5	New York	31
Cuba	2	North Dakota	1
Denmark	1	Ohio	2022
District of Columbia	1	Oklahoma	1
Georgia	2	Oregon	1
Honduras	1	Paraguay	1
Illinois	8	Pennsylvania	28
India	7	Philippine Islands	8
Indiana	17	Porto Rico	3
Iowa	5	Roumania	2
Japan	3	Russia	5
Kansas	3	Santo Domingo	1
Kentucky	7	Tennessee	5
Louisiana	1	Texas	4
Maine	1	Turkey	4
Malay Peninsula	1	Vermont	1
Maryland	4	Virginia	4
Massachusetts	7	West Indies	1
Mexico	3	West Virginia	10
Michigan	7	Wisconsin	6

SUMMARY BY COUNTIES

Adams	2	Hamilton	38	Noble	3
Allen	11	Hancock	11	Ottawa	4
Ashland	8	Hardin	6	Paulding	1
Ashtabula	20	Harrison	8	Perry	17
Athens	14	Henry	6	Pickaway	22
Auglaize	24	Highland	11	Pike	5
Belmont	30	Hocking	1	Portage	12
Brown	7	Holmes	1	Preble	17
Butler	27	Huron	13	Putnam	8
Carroll	2	Jackson	7	Richland	33
Champaign	23	Jefferson	11	Ross	28
Clark	30	Knox	12	Sandusky	12
Clermont	17	Lake	9	Scioto	11
Clinton	15	Lawrence	11	Seneca	8
Columbiana	14	Licking	41	Shelby	14
Coshocton	13	Logan	16	Stark	31
Crawford	15	Lorain	14	Summit	26
Cuyahoga	47	Lucas	18	Trumbull	12
Darke	12	Madison	33	Tuscarawas	21
Defiance	6	Mahoning	12	Union	26
Delaware	14	Marion	14	Van Wert	12
Erie	15	Medina	9	Vinton	1
Fairfield	39	Meigs	11	Warren	11
Fayette	19	Mercer	2	Washington	7
Franklin	727	Miami	22	Wayne	15
Fulton	8	Monroe	2	Williams	10
Gallia	4	Montgomery	67	Wood	7
Geauga	2	Morgan	6	Wyandot	10
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ERRATA

Page 23. Lines 11 and 28, italics.

Page 26. Insert after the seventh line the following:

CLYDE T. MORRIS.....369 Fifteenth Avenue
Associate Professor of Structural Engineering

C. E., Ohio State University, 1898; present position since April, 1906.

Pages 26 and 27. Transpose lines 8 to 14 inclusive, page 27, to page 26 after line 24.

Page 34. Fourth line from the top, read, "F. H. HASKETT" in place of "F. H. HESKETT."

Page 35. Second line from the top, read, "*Instructor in Engineering Drawing*," in place of, "*Instructor in Civil Engineering.*"

Page 37. Near middle of the page, read, "*Student Assistant in Engineering Drawing*," in place of "*Student Assistant in Civil Engineering.*"

Page 150. Near the middle of the page, read "JOSEPH NELSON BRADFORD, M. E., Professor of Architecture," in place of * * * * Professor of Architecture and Drawing."

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Vol. XIII Number 22

UNIV. OF ILLINOIS
AUG 16 1909

Ohio State University Bulletin

CATALOGUE

MAY 27, 1909

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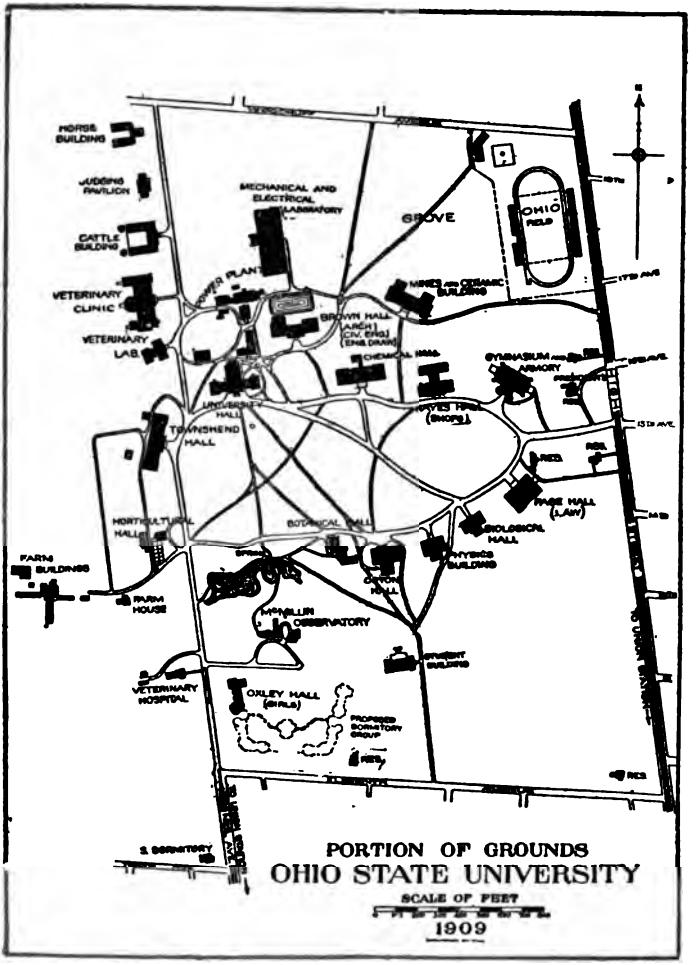
Ohio State University Bulletin

CATALOGUE 1908-1909

ANNOUNCEMENTS 1909-1910

MAY, 1909

COLUMBUS, OHIO
PUBLISHED BY THE OHIO STATE UNIVERSITY


HORSE BUILDING
JUDGING PAVILION
CATTLE BUILDING
VETERINARY CLINIC
VETERINARY LAB.
MECHANICAL AND ELECTRICAL LABORATORY
POWER PLANT
GROVE
OHIO FIELD
MINES AND CERAMIC BUILDING
BROWN HALL (ARCH.) (CIV. ENG.) (ENG. DRAW.)
CHEMICAL HALL
GYMNASIUM AND ARMORY
UNIVERSITY HALL
TOWNSHEND HALL
HAYES HALL (SHOPS)
PHARMACY HALL (LAW)
HORTICULTURAL HALL
BOTANICAL HALL
BIOLOGICAL HALL
PHYSICS BUILDING
FARM BUILDINGS
FARM HOUSE
ORTON HALL
McMILLIN OBSERVATORY
VETERINARY HOSPITAL
OXLEY HALL (GIRLS)
PROPOSED DORMITORY GROUP
S. DORMITORY
PORTION OF GROUNDS
OHIO STATE UNIVERSITY
SCALE OF FEET
1909

BOARD OF TRUSTEES

1908-1909

	Original Appointment	Term Expires
Frank A. Derthick, Mantua	Nov. 4, 1904	May 13, 1909
Guy W. Mallon, Cincinnati	May 11, 1903	" 1910
O. E. Bradfute, Cedarville	Aug. 21, 1905	" 1911
Frank E. Pomerene, Coshocton	May 15, 1905	" 1912
Oscar T. Corson, Columbus	May 13, 1899	" 1913
Walter J. Sears, Chillicothe	May 13, 1907	" 1914
John T. Mack, Sandusky	Feb. 24, 1893	" 1915

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O. E. BRADFUTE.

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JOHN T. MACK, GUY W. MALLON,
F. A. DERTHICK.

UNIVERSITY CALENDAR

1909

Entrance examinations (8 a. m.), Tuesday to Saturday, June 15 to 19.

Summer term, June 21 to August 13.

Summer session at the Lake Laboratory, Sandusky, June 21 to August 13.

Summer courses in Surveying, June 18 to July 17.

Summer courses in Shopwork, June 21 to August 13.

Entrance examinations (8 a. m.), Tuesday to Saturday, September 14 to 18.

First term begins—Registration Day—Tuesday, September 21.

First semester begins (Law College)—Registration Day, Tuesday, September 21.

Lectures and Classwork begin, Wednesday, September 22.

Meeting of Trustees, Wednesday, September 22.

President's Annual Address (11 a. m.), Friday, September 24.

Latest date of admission to candidacy for a degree at the Commencement of June, 1910, Friday, October 1.

Thanksgiving recess, November 25, 26, and 27.

Latest date for filing thesis subject, Wednesday, December 15.

First term ends, Wednesday, December 22.

CHRISTMAS VACATION

1910

Second term begins—Registration Day—Tuesday, January 4.

First semester ends (Law College), Friday, February 11.

Second semester begins (Law College)—Registration Day—Monday, February 14.

Washington's Birthday, Tuesday, February 22.

Second term ends, Friday, April 1.

SPRING RECESS

Third term begins—Registration Day—Wednesday, April 6.

Meeting of Trustees, Wednesday, April 6.

Field Day—Athletic Association—Saturday, May 7.

Competitive Drill—Cadet Regiment—Saturday, May 21.

Senior vacation begins, Saturday, May 28.

Latest date for presenting thesis, Saturday, June 11.

Final examinations, Friday to Thursday, June 10 to 16.

Entrance examinations (8 a. m.), Tuesday to Saturday, June 14 to 18.

Latest date for filing bound copy of thesis, Friday, June 17.

Baccalaureate sermon, Sunday, June 19.

Class Day, Monday, June 20.

Meeting of Trustees, Tuesday, June 21.

Alumni Day, Tuesday, June 21.

Commencement, Wednesday, June 22.

CALENDAR 1909

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ROBERT WHITE MCFARLAND.....Oxford, Ohio

Emeritus Professor of Civil Engineering

A. B., Ohio Wesleyan University, 1847; A. M., ibid., 1850; LL. D., ibid., 1881; Teacher in Academies, 1847-1851; Chillicothe Public Schools, 1852-1853; Professor of Mathematics and Astronomy, Madison College, 1853-1856; Professor, same chair, Miami University, 1856-1873; Captain 66th O. V. I., 1862; Lieutenant-Colonel of the same, 1863-1864; Professor of Mathematics, Astronomy and Civil Engineering, Ohio State University, 1873-1885; State Inspector of Railroads, 1881-1885; President of Miami University, 1885-1888; Civil and Mining Engineer, 1889-1899.

STILLMAN W. ROBINSON.....1353 Highland Street
Emeritus Professor of Mechanical Engineering

C. E., University of Michigan, 1863; D. S., Ohio State University, 1896; Assistant Engineer United States Lake Survey, 1863-1866; Instructor in Engineering, University of Michigan, 1866-1867; Assistant Professor Mining Engineering and Geodesy, ibid., 1867-1870; Professor of Mechanical Engineering and Physics, University of Illinois, 1870-1878; Professor of Mechanical Engineering and Physics, Ohio State University, 1878-1881; Professor Mechanical Engineering, ibid., 1881-1895; present title since 1899.

WILLIAM HENRY SCOTT.....Clintonville
Professor of Philosophy

B. A., Ohio University, 1862; M. A., ibid., 1865; LL. D., Ohio University and Ohio Wesleyan, 1884; Superintendent of Public Schools, Athens, Ohio, 1862-1864; Principal of the Preparatory Department of Ohio University, 1864-1865; Pastor of Main Street (now Trinity) M. E. Church, Chillicothe, Ohio, 1865-1867; Pastor of Town Street (now First) M. E. Church, Columbus, Ohio, 1867-1869; Professor of Greek, Ohio University, 1869-1872; President and Professor of Philosophy, ibid., 1872-1883; President and Professor of Philosophy, Ohio State University, 1883-1895; present position since 1895.

NATHANIEL WRIGHT LORD.....833 West Eighth Avenue
Professor of Metallurgy and Mineralogy, Director of the School of Mines

E. M., Columbia, 1876; Assistant Engineer, Cincinnati, 1877; Engineer and Metallurgist Monte Grande Gold Mining Co., Nicaragua, 1878; Assistant School of Mines, Ohio State University, 1877; Chemist, Ohio Geological Survey, 1880-1888; Assistant Professor of Mining and Metallurgy, Ohio State University, 1880-1887; Professor Mining and Metallurgy, ibid., 1887-1891; Chemist State Board of Agriculture, 1881-1899; Chemist State Board of Health, 1896-1898; present position since 1896.

SAMUEL CARROLL DERBY.....93 Fifteenth Avenue
Professor of Latin

A. B., Harvard, 1866; A. M., Harvard, 1869 (in course), 1877 (by examination); Principal of Schools, Ilion, N. Y., 1866-1867; Assistant in Dixwell's Classical School, Boston, 1867-1870; Professor of Latin, Antioch, 1870-1881; President, Antioch, 1877-1881; Student, Latin and History, Harvard, 1876-1877; Student, Latin and History, Johns Hopkins, 1880-1881; Student, Latin, Harvard, 1892-1893; present position since 1881.

WILLIAM RANE LAZENBY.....348 West Eighth Avenue
Professor of Forestry

B. Agr., Cornell, 1874; M. Agr., Iowa Agricultural College, 1887; Instructor Horticulture and Botany, Cornell, 1874-1877; Assistant Professor of Horticulture, Cornell, 1877-1881; Lecturer, New York State Grange, 1874-1881; Director Ohio U. S. Experiment Station, 1882-1887; Professor of Botany and Horticulture, Ohio State University, 1881-

1892; Collaborator United States Bureau of Forestry, 1901-1904; Professor of Horticulture and Forestry, Ohio State University, 1892-1908; present position since 1908.

JOSIAH RENICK SMITH.....950 Madison Avenue

Professor of the Greek Language and Literature

A. B., Amherst, 1871; A. M., ibid., 1883; Principal Mound Street School, Columbus, 1871-1873; Teacher, Columbus High School, 1873-1876; Assistant Professor of Ancient Languages, Ohio State University, 1876-1881; Student at Leipsic, 1881-1883; present position since 1883.

HENRY ADAM WEBER.....1342 Forsythe Avenue

Professor of Agricultural Chemistry

Graduate of Polytechnic School, Kaiserlautern, 1866; Student Chemistry, under Von Liebig and Reischauer, and of Mineralogy under Von Kobel, Munich, 1866-1868; Ph. D., Ohio State University, 1879; Ohio Geological Survey, Chemical Department, 1869-1874; Professor of General Chemistry and Mineralogy, University of Illinois, 1874-1882; Chemist to State Board of Agriculture, Illinois, 1874-1882; Chemist to State Board of Health, Illinois, 1874-1882; State Chemist and Chief Chemist to Ohio State Dairy and Food Commissioner, 1885-1897; present position since 1884.

BENJAMIN FRANKLIN THOMAS.....University Grounds

Professor of Physics, and State Sealer of Weights and Measures

B., Sc., Ripon, 1874; M. Sc., ibid., 1877; Ph. D., Stevens Institute, 1880; Instructor in Mathematics and Physics, Carlton College, Northfield, Minnesota, 1876-1879; Professor of Physics, University of Missouri, 1880-1885; Member of the Board of Examiners at the International Electrical Exhibition at Philadelphia, 1884; Member of the Jury of Awards, Department of Electricity, at the World's Columbian Exposition, Chicago, 1893; present position since 1885.

*GEORGE WELLS KNIGHT.....

Professor of American History and Political Science and of Law

A. B., University of Michigan, 1878; A. M., ibid., 1883; Ph. D., ibid., 1884; Student of Law, ibid., 1878-1879; Principal of High School, Lansing, Michigan, 1879-1881; Student, History and Political Science; University of Michigan, 1882-1884; Instructor in History, Ann Arbor High School, 1883-1885; Professor of History and English Literature, Ohio State University, 1885-1887; Professor of History and Political Science, ibid., 1887-1898; Student at Universities of Halle, Berlin, and Freiburg, 1889-1890; present position since 1898.

ROSSER DANIEL BOHANNAN.....Sixteenth and Indianola Avenues

Professor of Mathematics

B. Sc., C. E., E. M., University of Virginia, 1876; Student of Mathematics and Physics, Cambridge, England, 1880-1882; Gottingen, 1882-1883; Teacher of Mathematics and Latin, Suffolk Collegiate Institute, Virginia, 1876-1877; Teacher of Mathematics and English, New York Latin School, New York City, 1877-1878; Professor of Mathematics and Natural Science, Emory and Henry College, 1878-1880; Acting Pro-

*Absent on leave, 1908-1909.

fessor of Mathematics, University of Virginia, 1883-1884; Assistant in Mathematics and Physics, ibid., 1884-1887; Professor of Mathematics and Astronomy, Ohio State University, 1887-1895; present position since 1895.

ALBERT MARTIN BLEILE.....218 King Avenue

Professor of Anatomy and Physiology

M. D., Starling Medical College, 1876; Student, Vienna, Chemistry and Physiology, 1876-1877; Student, Physiology, Leipsic, 1877-1878; Student, Anatomy and Histology, Paris, 1878-1879; Lecturer on Experimental Physiology, Starling Medical College, 1879; Professor of Physiology, Starling Medical College, 1884; present position since 1891.

GEORGE BEECHER KAUFFMAN.....University Grounds

Professor of Pharmacy and Dean of the College of Pharmacy

B. Sc., Ohio Wesleyan University, 1877; Pharm. D., Scio, 1894; Associate Professor of Pharmacy, Ohio State University, 1887-1894; present position since 1894.

BENJAMIN LESTER BOWEN.....775 East Broad Street

Professor of Romance Languages and Literatures

A. B., University of Rochester, 1881; Ph. D., Johns Hopkins University, 1888; graduate work, University of Rochester, 1881-1882; Professor of Languages, New Windsor College, Maryland, 1882-1883; Graduate Student and Assistant in French, Johns Hopkins University, 1883-1886, and 1887-1888; Student at the Universities of Paris, Bonn, Rome, and Madrid, 1885, and 1886-1887; Professor of French and Latin, Bowdoin College, 1888-1889; Acting Associate Professor of French Language and Literature, Ohio State University, 1889-1890; Associate Professor of Romance Languages and Literatures, ibid., 1890-1894; present position since 1894.

JOSEPH VILLIERS DENNEY.....190 West Eleventh Avenue

Professor of English and Dean of the College of Arts, Philosophy, and Science

B. A., University of Michigan, 1885; Journalist, 1885-1888; Principal of the Aurora (Illinois) High School, 1888-1890; Instructor in English and Graduate Student, University of Michigan, 1890-1891; Associate Professor of Rhetoric, Ohio State University, 1891-1894; Professor of Rhetoric and English Language, 1894-1904; Lecturer in Columbia University, summer session 1907; student in Munich, Paris, London, 1907-1908; present position since 1904.

EDWARD ORTON, JR.....The Lincoln

Professor of Ceramic Engineering

E. M., Ohio State University, 1884; Assistant on Ohio Geological Survey, 1882; Chemist for Columbus and Hocking Coal and Iron Company, 1885-1886; Superintendent of Blast Furnace at New Straitsville, Ohio, 1887-1888; Superintendent of Victoria Furance, Goshen Bridge, Va., 1888; Steel Worker, Homestead Steel Works, Homestead, Pa., 1889; Superintendent Ohio Paving Company's Factory, Columbus, Ohio, 1890-1892; Special Assistant on Clays, Ohio Geological Survey, 1892; Superintendent Acme Vitrified Brick Company, Louisville, Ky., 1893;

Secretary American Ceramic Society, 1899; State Geologist of Ohio, 1899-1906; Professor of Clayworking and Ceramics, Onio State University, 1894-1908; present position since 1908.

*EMILIUS OVIATT RANDALL.....

Professor of Law

Ph. B., Cornell, 1874; LL. B., LL. M., Ohio State University, 1892; admitted to practice, 1890; Secretary Ohio State Historical Society; Reporter Supreme Court of Ohio; present position since 1893.

WILLIAM THOMAS MAGRUDER.....343 West Ninth Avenue

Professor of Mechanical Engineering

M. E., Stevens Institute of Technology, 1881; Practical Experience in Machine Design and Shop Practice, Taunton, Mass., 1881-1886; Student in Chemistry and Mathematics, etc., Johns Hopkins University, 1886-1887; Adjunct Professor of Mechanical Engineering (practical and theoretical), Vanderbilt University, 1887-1896; present position since 1896.

EDGAR BENTON KINKEAD....1944 Iuka Avenue; New Hayden Bldg.

Professor of Law

M. A., Marietta College, 1904; Assistant State Law Librarian, 1887-1894; in practice since 1891; Special Counsel for Attorney-General of Ohio, 1897-1900; present position since 1895.

WILLIAM HERBERT PAGE.....Arlington; 27 Board of Trade

Professor of Law

B. A., Yale, 1889; LL. B., Ohio State University, 1892; LL. M., ibid., 1894; Instructor in Central High School, Columbus, Ohio, 1889-1896; present position since 1896.

WILLIAM MCPHERSON.....198 Sixteenth Avenue

Professor of Chemistry

B. Sc., Ohio State University, 1887; M. Sc., ibid., 1890; D. Sc., ibid., 1895; Ph. D., University of Chicago, 1899; Instructor in Chemistry and Physics, Toledo High School, 1887-1889; Instructor in Chemistry and Latin, Toledo High School and Manual Training School, 1889-1892; Assistant in Chemistry, Ohio State University, 1892-1893; Assistant Professor in Chemistry, ibid., 1893-1895; Associate Professor of General Chemistry, ibid., 1895-1897; present position since 1897.

JOSEPH NELSON BRADFORD.....1598 Neil Avenue

Professor of Architecture

M. E., Ohio State University, 1883; Draftsman, Ohio Geological Survey, 1882-1883; Motor Power Department, Pennsylvania Railroad, 1883-1885; Assistant in Mechanical Engineering and Drawing, Ohio State University, 1885-1890; Assistant Professor of Drawing, ibid., 1890-1893; Associate Professor of Drawing, ibid., 1893-1899; Professor of Architecture and Drawing, ibid., 1899-1906; present position since 1906.

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*Absent on leave, 1908-1909.

DAVID STUART WHITE.....1656 Neil Avenue

Professor of Veterinary Medicine, and Dean of the College of Veterinary Medicine

D. V. S., Ohio State University, 1890; Student, Royal Veterinary Schools of Hanover, Berlin, 1890-1891; at Imperial Veterinary Institute of Vienna, 1892; Royal Veterinary College, of Dresden, 1893; Assistant in Veterinary Medicine, Ohio State University, 1893-1895; present position since 1895.

HERBERT OSBORN.....485 King Avenue

Professor of Zoology and Entomology and Director of the Lake Laboratory

B. Sc., Iowa Agricultural College, 1879; M. Sc., ibid., 1880; Student of Entomology at Museum Comparative Zology, (Cambridge, Mass.), 1881-1882; College of Physicians and Surgeons, Des Moines, 1884-1885 (Anatomy and Physiology); Zoological Station, Naples (Smithsonian table), 1894-1895; Assistant in Zoology and Entomology, Iowa Agricultural College, 1880-1883; Assistant Professor of Zoology and Entomology, ibid., 1884-1885; Professor of Zoology and Entomology, ibid., 1886-1898; Special Agent Division of Entomology, United States Department of Agriculture, 1885-1894; Entomologist, Iowa Experiment Station, 1880-1898; State Entomologist, Iowa, 1898; present position since 1898.

OLIVE JONES.....95 West Eleventh Avenue

Librarian

B. A., Ohio State University, 1887; Assistant Librarian, 1887; present position since 1898.

HENRY CURWEN LORD.....University Grounds

Professor of Astronomy and Director of the Emerson McMillin Observatory

B. Sc., University of Wisconsin, 1889; Assistant in Washburn Observatory, University of Wisconsin; with Thompson-Houston Electric Company, 1889; Assistant in Mathematics and Astronomy, Ohio State University, 1891-1894; Director and Associate Professor of Astronomy, 1893-1900; elected Fellow, Royal Astronomical Society, 1897; present position since 1900.

FRANK EDWIN SANBORN.....90 East Fourteenth Avenue

Professor of Industrial Arts and Director of the Department

S. B., in Mechanical Engineering, Massachusetts Institute of Technology, 1889; Assistant in Drawing, Massachusetts Institute of Technology, 1889-1890; Teacher in Manual High School Department, Pratt Institute, 1890-1891; Walker Special Instructor, Tufts College, 1891-1894; Instructor in Mechanical Department, ibid., 1894-1898; Director of the Department of Industrial Arts, Ohio State University, 1898-1900; present position since 1900.

FRANK ARNOLD RAY.....137 King Avenue

Professor of Mine Engineering

E. M., Ohio State University, 1887; Superintendent Building Construction, Elah Terrell & Co., 1887-1888; Assistant Mining Engineer of

C. & H. C. & I. Co., 1888-1889; Chief Engineer C. & H. C. & I. Co., 1889-1892; Chief Engineer Congo Mining Co., 1892-1895; Assistant Professor of Mine Engineering, Ohio State University, 1895-1897; Associate Professor, 1897-1900; present position since 1900.

JOHN ALLEN SHAUCK...95 Winner Avenue; Supreme Court Building

Professor of Law

B. A., Otterbein University; LL. B., University of Michigan, 1867; A. M., Otterbein University, 1870; LL. D., ibid., 1897; Judge of the Supreme Court of Ohio; Lecturer on Supreme Court Practice, Ohio State University, 1898-1900; present position since 1900.

CAPTAIN GEORGE L. CONVERSE, U. S. A. (Retired)

922 Madison Avenue

Professor of Military Science and Tactics

Present position since 1900.

EMBURY ASBURY HITCHCOCK.....380 West Eighth Avenue

Professor of Experimental Engineering

M. E., Cornell, 1890; Straight Line Engine Company, Syracuse, N. Y., 1889; Corliss Steam Engine Co., Providence, R. I., 1890-1893; Assistant in Mechanical Engineering, Ohio State University, 1893-1895; Assistant Professor of Mechanical Engineering in charge of the Department, 1895-1896; Assistant Professor of Experimental Engineering, ibid., 1896-1897; Associate Professor of Experimental Engineering, ibid., 1897-1901; present position since 1901.

FRANCIS CARY CALDWELL.....206 Sixteenth Avenue

Professor of Electrical Engineering

A. B., Cornell, 1890; M. E., ibid., 1891; with Thompson-Houston Electric Co., Lynn, Mass., 1891-1892; Student at the National Polytechnic School, Zurich, 1892-1893; Assistant Professor of Electrical Engineering, Ohio State University, 1893-1897; Associate Professor of Electrical Engineering, 1897-1901; present position since 1901.

CHARLES SMITH PROSSER.....114 West Tenth Avenue

Professor of Geology

B. S., Cornell University, 1883; M. S., ibid., 1886; D. Sc., Union, 1906; Ph. D., Cornell, 1907; Fellow in Natural History, ibid., 1884-1885; Instructor in Paleontology, ibid., 1885-1888; Assistant Paleontologist, United States Geological Survey, 1888-1892; Professor of Natural History, Washburn College, 1892-1894; Assistant Geologist, United States Geological Survey, 1893-1894; Professor of Geology, Union College, 1894-1899; Assistant Geologist, New York Geological Survey, 1895-1899; Assistant Geologist, University Geological Survey of Kansas, 1896; Chief Appalachian Division, Maryland Geological Survey, 1898-1902; Assistant Geologist, Ohio Geological Survey and United States Geological Survey since 1900; Associate Professor of Historical Geology, Ohio State University, 1899-1901; present position since 1901.

JOHN ADAMS BOWNOCKER.....1594 Neil Avenue

Professor of Inorganic Geology and Curator of the Museum

B. Sc., Ohio State University, 1889; D. Sc., ibid., 1897; Principal of High School, Martin's Ferry, 1889-1892; Fellow in Geology, University

of Chicago, 1892-1894; Graduate Scholar, Yale University, 1894-1895; Assistant Geological Survey of Ohio, 1892; Assistant Geological Survey of New Jersey, 1893; Assistant Geologist, Ohio Survey, 1900; State Geologist, 1906—; Assistant in Geology, 1895-1898; Assistant Professor, 1898-1899; Associate Professor of Inorganic Geology and Curator of the Museum, 1899-1901; present position since 1901.

ALFRED DODGE COLE.....1648 Neil Aavenue

Professor of Physics

B. A., Brown University, 1884; M. A., ibid., 1887; Student at Johns Hopkins, 1884-1885; Harvard, Summer of 1888; Berlin, 1893-1894; Cornell, Summer, 1897; University of Chicago, Summers of 1898, 1899, 1900, 1904; Instructor in Chemistry and Physics, Denison University, 1885-1887; Acting Professor, ibid., 1887-1888; Professor, ibid., 1888-1901; Professor of Physics, Ohio State University, 1901-1907; Professor of Physics, Vassar College, 1907-1908; present position since 1908.

WILBUR HENRY SEIBERT.....182 West Tenth Avenue

Professor of European History

A. B., Ohio State University, 1888; A. B. (with honorable mention), Harvard University, 1889; M. A., ibid., 1890; Student, Freiburg and Berlin, 1890-1891; Student, Harvard, 1895-1897; Assistant in History and Political Science; Ohio State University, 1891-1893; Assistant Professor of History, ibid., 1893-1895; 1897-1898; Associate Professor of European History, 1898-1902; present position since 1902.

CHRISTOPHER ELIAS SHERMAN.....230 West Tenth Avenue

Professor of Civil Engineering

C. E., Ohio State University, 1894; engaged in railroad, geological, and governmental engineering, 1894-1896; Engineer to Park Commission, Springfield, Ohio, and United States Assistant Engineer at Tampa, Florida, and Huntsville, Alabama, summer of 1898; United States Assistant Engineer on Roads and Bridges, Yellowstone National Park, summer of 1899 and 1900; Assistant in Civil Engineering, Ohio State University, 1896-1897; Assistant Professor of Civil Engineering, ibid., 1897-1901; Associate Professor of Civil Engineering, ibid., 1901-1902; present position since 1902.

CHARLES SUMNER PLUMB.....107 West Eleventh Avenue

Professor of Animal Husbandry

B. S., Massachusetts Agricultural College, 1882; Associate Editor, "Rural New Yorker," 1883-1884; First Assistant, New York State Experiment Station, 1884-1887; Professor of Agriculture, University of Tennessee, and Assistant Director Tennessee Experiment Station, 1887-1890; Professor of Agricultural Science, Purdue University, 1890-1894; Professor Animal Industry and Dairying, ibid., 1894-1900; Professor Animal Industry, ibid., 1900-1902; Vice-director Indiana Agricultural Experiment Station, 1890-1891; Director Indiana Agricultural Experiment Station, 1891-1902; present position since 1902.

WILLIAM W. BOYD.....56 North Monroe Avenue
Professor of School Administration and Dean of the College of Education

B. A., Marietta College, 1884; M. A., ibid., 1887; Teacher in Public Schools, 1884-1890; Superintendent of Schools at Marietta, 1890-1898; Superintendent of Schools at Painesville, Ohio, 1898-1902; Member of State Board of School Examiners, 1898-1902; High School Visitor, Ohio State University, 1902-1907; present position since 1907.

SEPTIMUS SISSON.....1546 Neil Avenue
Professor of Comparative Anatomy

S. B., University of Chicago, 1898; Ontario Veterinary College, 1891; Demonstrator of Anatomy, Ontario Veterinary College, 1891-1899; Graduate Student, University of Chicago, Summer Quarters, 1900-1901; Student in Anatomy and Anatomical Methods under Waldeyer and Schmaltz in Berlin, and under Ruge and Felix in Zurich, 1905-1906; Associate Professor of Veterinary Science and Zoology, Kansas State Agricultural College, 1899; Professor of Zoology, ibid., 1900; Associate Professor of Veterinary Medicine, Ohio State University, 1901-1903; present position since 1903.

HOMER CHARLES PRICE.....1986 Indianola Avenue
Professor of Rural Economics and Dean of the College of Agriculture and Domestic Science

B. Sc., (Agr.), Ohio State University, 1897; M. S. A., Cornell University, 1899; Fellow in Agriculture, Cornell University, 1898-1899; Assistant in Horticulture, Ohio State University, 1899-1901; Professor of Horticulture and Forestry, Iowa State College, 1901-1903; present position since 1903.

LEWIS ADDISON RHOADES.....162 Fourteenth Avenue
Professor of Germanic Languages and Literatures

A. B., University of Michigan, 1884; A. M., ibid., 1886; Ph. D., Gottingen, 1892; Teacher of English and Latin, Michigan Military Academy, 1884-1885; Teacher of History and German, Ann Arbor High School, 1885-1888; Instructor in German, University of Michigan, 1888-1890; Student at University of Gottingen, 1890-1892; Instructor in German, Cornell University,, 1893-1896; Professor of German, University of Illinois, 1896-1903; present position since 1903.

EDMOND BOTHWELL DILLON.....83 Wilson Avenue
Professor of Law

Student special courses of five years, Ohio Wesleyan University; Judge Court of Common Pleas of Franklin County, Ohio; present position since 1904.

JAMES M. BUTLER.....195 East Town Street
Professor of Law

A. B., Ohio Wesleyan University, 1892; LL. B., Ohio State University, 1894; Lecturer in Law, Ohio State University, 1901-1903; City Solicitor, Columbus, 1903-1905; present position since 1904.

JAMES E. HAGERTY.....94 Fifteenth Avenue

Professor of Economics and Sociology

A. B., Indiana University, 1892; Ph. D., University of Pennsylvania, 1900; Instructor in Mathematics, La Porte High School, 1892-1896; Graduate Student, University of Chicago, 1896-1897; Honorary Fellow in Economics, University of Wisconsin, 1897-1898; Student at Berlin and Halle, 1898-1899; Harrison Fellow in Sociology, University of Pennsylvania, 1899-1900; Senior Fellow in Sociology, ibid., 1900-1901; Assistant Professor of Economics and Sociology and Acting Head of Department, Ohio State University, 1903-1904; present position since 1904.

DAVID R. MAJOR.....387 King Avenue

Professor of Psychology

B. S., Wabash College, 1890; Ph. D., Cornell University, 1896; Higher Diploma in Education, Teachers' College, Columbia University, 1899; Principal of Schools, Warren, Indiana, 1890-1892; Graduate Student in Philosophy and Sociology, Cornell University, 1892-1896; Scholar in Philosophy, 1894-1895; Fellow, 1895-1896; Principal of High School, Frankfort, Indiana, 1896-1898; Fellow in Education, Teachers' College, Columbia University, 1898-1899; Graduate Student, University of Chicago, Summer Quarter, 1899; Acting Professor of Pedagogy, University of Nebraska, 1899-1900; Assistant in Education, Teachers' College, Columbia University, 1900-1901; Associate Professor of Education, Ohio State University, 1901-1904; Professor of Education, ibid., 1904-1907; present position since 1907.

CHARLES BRADFIELD MORREY.....188 West Tenth Avenue

Professor of Bacteriology

B. A., Ohio State University, 1890; Graduate Student, Ohio State University, 1890-1891; M. D., Starling Medical College, 1896; Assistant in Latin, Ohio State University, 1890-1891; Assistant in Latin and Physiology, 1891-1892; Assistant in Physiology, 1892-1897; Student in Vienna and Paris, 1897-1899; Assistant Professor of Anatomy and Physiology, Ohio State University, 1899-1902; Associate Professor of Anatomy and Physiology, ibid., 1902-1903; Associate Professor of Bacteriology, ibid., 1903-1904; present position since 1904.

GILBERT HOLLAND STEWART.....916 Madison Avenue

Professor of Law

A. B., Harvard, 1880; Student Harvard Law School, 1867; Professor of Medical Jurisprudence, Starling Medical College; present position since 1904.

FRANK HARVEY ENO.....48 Smith Place

Professor of Municipal Engineering

B. S., University of Illinois, 1891; C. E., ibid., 1894; Assistant Engineer and Superintendent Department of "Water Supply, Sewerage and Fire Protection," World's Columbian Exposition, 1891-1893; Assistant to Consulting Engineer, Chicago, 1894-1895; City Engineer, Winnetka, Ill., 1895-1898; Assistant Engineer and Chief Draftsman, City Engineer's Office, Columbus, Ohio, 1898-1902; Associate Professor of Civil Engineering, Ohio State University, 1902-1905; present position since 1905.

ALFRED VIVIAN.....375 West Eighth Avenue
Professor of Agricultural Chemistry

Ph. G., University of Wisconsin, 1894; Instructor in Pharmacognosy, ibid., 1894-1895; Assistant in Agricultural Chemistry, ibid., 1895-1897; Instructor in Agricultural Chemistry and Assistant Chemist to Experiment Station, 1897-1902; Associate Professor of Agricultural Chemistry, Ohio State University, 1902-1905; present position since 1905.

*EMILY EATON BRACKEN.....The Lenox
Professor of Art

Student at Chicago Art Institute, 1892-1896; University of Chicago, 1894-1895; Summer School, Ipswich, Mass., 1902; New York School of Arts and Teachers' College, Columbia University, 1905-1906; Instructor, Chicago Review School for Teachers, 1894-1896; Public Schools, 1896-1898; Supervisor of Art Instruction, Sterling, Ill., 1898; Circuit Supervisor of Art Instruction, cities of the West and Middle West, 1899-1901; Supervisor of Art Instruction, Louisville, Ky., 1901-1905; in charge of summer work, University of Tennessee, 1904; Ohio State University, 1905-1906; present position since 1906.

JAMES ELLSWORTH BOYD.....92 West Lane Avenue
Professor of Mechanics

B. Sc., Ohio State University, 1891; M. S., Cornell, 1896; Student in Physics and Mathematics, Ohio State University, 1893-1895; Student in Experimental and Theoretical Physics, Cornell, 1895-1896; also Student in Sibley College of Mechanic Arts, Cornell, Summer of 1895; Assistant in Physics, Ohio State University, 1891-1895; held scholarship in Physics, Cornell, 1895; Assistant Professor of Physics, Ohio State University, 1896-1901; Associate Professor of Mathematics, 1901-1906; present position since 1906.

THOMAS EWING FRENCH.....1458 Worthington Street
Professor of Engineering Drawing

M. E., Ohio State University, 1895; Draftsman, The Smith-Vaile Company, Dayton, Ohio, 1888-1890; Instructor in Mechanical Drawing, Y. M. C. A., Dayton, Ohio, 1888-1891; Chief Draftsman, The Smith-Vaile Company, Dayton, 1891; Assistant in Drawing, 1892-1898; Assistant Professor of Drawing, 1898-1901; Associate Professor of Architecture and Drawing, 1901-1906; present position since 1906.

ARTHUR GILLETT MCCALL.....141 West Eleventh Avenue
Professor of Agronomy

B. Sc. (Agr.), Ohio State University, 1900; Assistant in Physical Laboratory, Bureau of Soils, United States Department of Agriculture, 1900-1904; Assistant Professor of Agronomy, Ohio State University, 1904-1905; Associate Professor of Agronomy, 1905-1906; present position since 1906.

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*Resigned, January 1, 1909.

GEORGE WASHINGTON RIGHTMIRE.....262 East Woodruff Avenue

Professor of Law, and Acting Dean of the College of Law

B. Ph., Ohio State University, 1895; A. M., ibid., 1898; Teacher, North High School, Columbus, 1895-1902; Instructor in American History and Political Science, Ohio State University, 1902-1903; Instructor in Law, 1903-1906; present position since 1906.

H. SHINDLE WINGERT.....168 East Fourteenth Avenue

Director of Physical Education

M. D., Maryland Medical College, 1903; Graduate Student, Medical Department, Temple College, 1904-1905; Director of Physical Education, West Philadelphia, Y. M. C. A., 1891-1898; Director of Physical Education, Temple College, 1899-1905; Dean, Philadelphia Normal School of Physical Training, 1900-1905; Member of Faculty, Yale University, Summer School of Physical Education, 1904-1906; Director of Physical Education, Central Y. M. C. A., St. Louis, 1905; Director of Physical Education, Lehigh University, 1906; present position since January 1, 1907.

OSCAR ERF.....157 East Twelfth Avenue

Professor of Dairying

B. Sc. (Agr.), Ohio State University, 1899; Assistant Professor of Dairy Manufacture, University of Illinois, 1899-1903; Professor of Dairy and Animal Husbandry, Kansas State Agricultural College, 1903-1907; present position since 1907.

FRANK PIERREPONT GRAVES.....1340 Highland Street

Professor of the History and Philosophy of Education

B. A., Columbia University, 1890; A. M., ibid., 1891; Ph. D., Boston University, 1892; Graduate Student of Greek, Columbia, Boston and Harvard, 1890-1894; Education, University of Chicago, Summer 1901 and 1902-1904; Instructor, Drisler School (N. Y.), 1889-1890; Assistant in Greek, Columbia University, 1890-1891; Assistant Professor of Greek, Tufts College, 1891-1893; Professor of Classical Philology, ibid., 1893-1896; President, University of Wyoming, 1896-1898; President, University of Washington, 1898-1903; Professor of the History and Principles of Education, University of Missouri, 1904-1907; present position since 1907.

FREDERICK RUPERT MARSHALL.....141 West Eleventh Avenue

Professor of Animal Husbandry

B. Sc., (Agr.), Ontario Agricultural Colege, 1889; B. S. A., Iowa State College, 1900; Assistant Professor of Animal Husbandry, ibid., 1901-1903; Professor of Animal Husbandry, Texas College of Agriculture and the Mechanic Arts, 1903-1907; present position since 1907.

HENRY RUSSELL SPENCER.....259 East Gay Street

Professor of American History and Political Science

A. B., Colby College, 1899; A. M., Columbia University, 1901; Ph. D., ibid., 1905; Graduate Student, ibid., 1900-1903; Teacher of Latin and Mathematics, Coburn Classical Institute, 1899-1900; Instructor in American History and Political Science, Ohio State University, 1903-1905;

Assistant Professor of American History and Political Science, ibid., 1905-1906; Preceptor in History, Politics, and Economics, Princeton University, 1906-1907; present position since 1907.

ALONZO HUBERT TUTTLE.....316 West Seventh Avenue

Professor of Law

A. B., University of Michigan, 1896; A. M., ibid., 1903; Assistant Principal of High School, Ishpeming, Mich., 1896-1898; Principal of High School, Ironwood, Mich., 1898-1900; Instructor in American History and Political Science, Ohio State University, 1900-1902; Graduate Student, Universities of Wisconsin and Michigan, 1902-1903; Assistant Professor American History and Political Science, 1902-1907; present position since 1907.

RUTH AIMEE WARDALL.....Oxley Hall

Professor of Domestic Science

A. B., University of Illinois, 1903; A. M., ibid., 1907; Graduate Student for one year, ibid.; Summer Terms at Universities of Chicago and Columbia; Instructor in Domestic Science, South Dakota State College; Instructor, Summer Terms at Universities of Illinois and Chicago; present position since 1907.

GEORGE WASHINGTON MCCOARD.....1392 Neil Avenue

Professor of Mathematics

B. A., Bethany, 1873; M. A., ibid., 1882; Principal of Oakdale Classical Normal Institute, Allegheny County, Pennsylvania, 1873-1874; Private Tutor in Cleveland, Ohio, 1874-1880; Principal of Public Schools, Irving Park, Chicago, 1880-1881; Teacher of Latin and Mathematics, Columbus High School, 1881-1882; Assistant in Mathematics and Latin, Ohio State University, 1882-1887; Assistant Professor of Mathematics, ibid., 1887-1889; Associate Professor of Mathematics, ibid., 1889-1908; present position since 1908.

ARTHUR WINFRED HODGMAN.....325 West Tenth Avenue

Professor of the Classical Languages

A. B., Harvard, 1890; A. M., ibid., 1893; Ph. D. (Classical Philology), ibid., 1896; Student in Graduate School, ibid., (Classical Philology), 1892-1896; Instructor in Preparatory Schools, Quincy, Duxbury, Mass., 1890-1892; Assistant in Greek and Latin, Ohio State University, 1896-1897; Assistant Professor of the Classical Languages, ibid., 1897-1899; Associate Professor of the Classical Languages, ibid., 1899-1908; present position since 1908.

WILLIAM EDWARDS HENDERSON.....182 West Tenth Avenue

Professor of Inorganic and Physical Chemistry

A. B., University of Wooster, 1891; Ph. D., Johns Hopkins University, 1897; Graduate Student, ibid., 1893-1897; Fellow in Chemistry, ibid., 1896-1897; Professor of Natural Sciences, College of Emporia, Kansas, 1891-1893; Professor of Chemistry, Ohio University, 1897-1899; Assistant Professor of Chemistry, Ohio State University, 1899-1901; Associate Professor of Chemistry, ibid., 1901-1908; present position since 1908.

JOSEPH RUSSELL TAYLOR.....376 West Seventh Avenue

Professor of English

B. A., Ohio State University, 1887; M. A., Columbia University, 1897; Assistant in Drawing, Ohio State University, 1889-1894; Assistant in Rhetoric, ibid., 1894-1897; University Fellow in Literature, Columbia University, 1896-1897; Assistant Professor of Rhetoric, Ohio State University, 1897-1899; Assistant Professor of English Literature, ibid., 1899-1901; Associate Professor of English Literature, 1901-1904; Associate Professor of English, 1904-1908; present position since 1908.

CHARLES A. BRUCE.....1981 Indianola Avenue

Professor of the Romance Languages

B. A., Ohio State University, 1895; Student of French, Amherst Summer School, 1895; Graduate Student, University of Chicago, Summer Quarter, 1896; Student, University of Geneva, Summer School, 1898; Student at the Sorbonne, College de France, and Ecole des Hautes-Etudes, Paris, 1898-1899; Graduate Student, University of Chicago, Summer Quarter, 1900; Assistant in French, Ohio State University, 1895-1899; Assistant Professor of Romance Languages, ibid., 1899-1901; Associate Professor of Romance Languages, ibid., 1901-1908; present position since 1908.

CHARLES WILLIAM FOULK.....1487 Michigan Avenue

Professor of Analytical Chemistry

B. A., Ohio State University, 1894; Commercial Analytical Work, 1894-1896; Assistant in General Chemistry, 1896-1898; Student, Physical-Chemical Institute, Leipsic, 1899-1901; Assistant Professor of Chemistry, Ohio State University, 1898-1902; Associate Professor of Chemistry, ibid., 1902-1908; present position since 1908.

FRANCIS LEROY LANDACRE.....1634 Neil Avenue

Professor of Zoology and Entomology

B. A., Ohio State University, 1895; Student in Chicago University, Summer Quarters of 1898 and 1899; Professor of Embryology in Ohio Medical University since 1896; Assistant in Zoology and Entomology, Ohio State University, 1895-1900; Assistant Professor Zoology and Entomology, ibid., 1900-1902; Associate Professor of Zoology and Entomology, ibid., 1902-1908; present position since 1908.

WALLACE S. ELDEN.....1734 Summit Street

Professor of the Classical Languages

A. B., Bowdoin, 1889; A. M., ibid., 1892; Ph. D., University of Michigan, 1900; Student in Johns Hopkins University, 1889-1890; Headmaster, Rectory School, Hamden, Conn., 1890-1891; Student in Johns Hopkins University, 1891-1892; Instructor in Latin and French, Ohio State University, 1892-1894; Instructor in the Romance Languages, University of Michigan, 1894-1896; Instructor in Latin and Greek, University of Maine, 1896-1897; Assistant Professor of the Classic Languages, ibid., 1897-1899; Student in the University of Michigan, 1899-1900; Assistant Professor of the Classical Languages, Ohio State University, 1900-1902; Associate Professor of Classical Languages, ibid., 1902-1908; present position since 1902.

MATTHEW BROWN HAMMOND.....1483 Michigan Avenue
Professor of Economics and Sociology

Ph. B., University of Michigan, 1891; M. L., University of Wisconsin, 1893; Ph. D., Columbia University, 1898; Principal, Versailles Institute, Versailles, Mo., 1891-1892; Grduate Student, University of Wisconsin, 1892-1893; Student of Economics in Tuebingen and Berlin, Germany, 1893-1894; University Fellow in Finance, Columbia University, 1894-1895; Acting Assistant Professor of Economics, University of Missouri, 1896-1897; Assistant in Economics, University of Illinois, 1897-1898; Instructor in Economics, ibid., 1898-1900; Graduate Student in Economics and Sociology, University of Wisconsin, Summer of 1900; Assistant Professor of Economics, University of Illinois, 1900-1904; Assistant Professor of Economics and Sociology, Ohio State University, 1904-1905; Associate Professor of Economics and Sociology, ibid., 1905-1908; present position since 1908.

KARL DALE SWARTZEL.....308 West Eighth Avenue
Professor of Mathematics

B. Sc., Ohio State University, 1893; M. Sc., ibid., 1894; Fellow and Assistant in Mathematics, ibid., 1894-1895; Assistant in Mathematics, ibid., 1895-1896; Austin Scholar, Harvard University, 1902-1903; Assistant Professor of Mathematics, Ohio State University, 1899-1906; Associate Professor of Mathematics, ibid., 1906-1908; present position since 1908.

HARRY WALDO KUHN.....316 West Ninth Avenue
Professor of Mathematics

B. S., Ohio State University, 1897; Ph. D., Cornell University, 1901; Fellow and Assistant in Mathematics, Ohio State University, 1897-1898; Oliver Scholar in Mathematics at Cornell, 1898-1899; Erastus Brooks Fellow in Mathematics, ibid., 1899-1900; Assistant in Mathematics, ibid., 1900-1901; Assistant Professor of Mathematics, Ohio State University, 1901-1907; Associate Professor of Mathematics, ibid., 1907-1908; present position since 1908.

GEORGE H. MCKNIGHT.....289 East State Street
Professor of English

A. B., Cornell, 1892; Ph. D., ibid., 1896; Instructor in English, ibid., 1892-1897; Cornell Traveling Fellow in English Philology, 1897-1898; Student in Freiburg, 1897-1898; Student in Paris and London, 1898-1899; Assistant Professor of Rhetoric and English Language, Ohio State University, 1899-1904; Assistant Professor of English, ibid., 1904-1908; present position since 1908.

THOMAS HARVEY HAINES.....396 King Avenue
Professor of Psychology

B. A., Haverford College, 1896; M. A., ibid., 1897; M. A., Harvard University, 1898; Ph. D., ibid., 1901; Assistant in Philosophy, ibid., 1898-1899; Assistant Professor of Philosophy, Ohio State University, 1901-1908; present position since 1908.

ARTHUR ERNEST DAVIES.....295 East Seventeenth Avenue

Professor of Philosophy

Student in Owen's College, Manchester, England, and University College, London, 1884-1888; B. D., Yale Divinity School, 1891; Ph. D., Yale University, 1898; Instructor in Philosophy, Ohio State University, 1900-1906; Assistant Professor of Philosophy, ibid., 1906-1908; present position since 1908.

CLYDE T. MORRIS.....292 East Sixteenth Avenue

Professor of Structural Engineering

C. E., Ohio State University, 1898; Associate Professor of Structural Engineering, ibid., 1906-1908; present position since 1908.

GEORGE RANSOM TWISS.....1546 Neil Avenue

High School Visitor

B. Sc., Ohio State University, 1885; Student in Physical Geography, Harvard, Summer, 1897; Physics, Western Reserve University, 1901; Physics, University of Chicago, Summer, 1902; Shop Work, ibid., 1905; Teacher of Science and Mathematics, Rayen School, 1885-1886; Sciences and English Composition, ibid., 1886-1891; Mathematics and Physics, Central High School (Columbus), 1891-1893; Chemistry, ibid., 1893-1894; Teacher of Physics and Head of the Department of Science, Central High School (Cleveland), 1894-1898; Assistant in Physical Geography, Harvard, Summer, 1899; Instructor in Physics, Ohio State University, Summer Term, 1908; present position since 1908.

FRANCIS BAIL PEARSON.....125 Wilson Avenue

High School Visitor

B. A., Wooster University, 1885; M. A., ibid., 1888; Professor of Latin, Macalester College, 1885-1891; Teacher in Central High School (Columbus), 1892-1897; Principal East High (Columbus), 1897-1908; present position since 1908.

JOHN H. MCNEIL.....339 West Ninth Avenue

Professor of Veterinary Surgery and Obstetrics

D. V. M., Philadelphia University, 1898; Resident Surgeon, Veterinary Hospital, University of Pennsylvania; Meat Inspection and Quarantine Divisions, U. S. Bureau of Animal Industry; Professor of Anatomy and Surgery, Iowa State College of Agriculture and Mechanic Arts, 1900-1904; Professor of Surgery and Practice, ibid., 1904-1908; present position since 1908.

JOHN H. SCHAFFNER.....122 Chittenden Avenue

Associate Professor of Botany

A. B., Baker University, Kansas, 1893; A. M., University of Michigan, 1894; M. S., Baker University, 1896; Student in Botany, Zoology, and Geology, University of Michigan, 1893-1895; Student in Botany and Paleo-Botany, University of Chicago, 1896-1897; Assistant in Botany, University of Michigan, 1894-1895; Professor of Natural Sciences, South Dakota University, 1895-1896; Assistant in Botany, Ohio State University, 1897-1899; Assistant Professor of Botany, 1899-1902; present position since 1902.

JAMES STEWART HINE.....1340 Hunter Street

Associate Professor of Zoology and Entomology

B. Sc. (H. F.), Ohio State University, 1898; Superintendent of the N. W. sub-station of the Ohio Agricultural Experiment Station, 1898; Assistant in Horticulture, Ohio State University, 1894; Student in Entomology, Cornell, 1895; Assistant in the Division of Entomology of the United States Department of Agriculture, Summers of 1897 and 1899; Assistant in Entomology, 1895-1899; Assistant Professor of Zoology and Entomology, Ohio State University, 1899-1902; present position since 1902.

OSCAR V. BRUMLEY.....353 East Thirteenth Avenue

Associate Professor of Veterinary Medicine

Veterinary Surgeon's Certificate, Ohio State University, 1897; practiced, 1897-1898; Graduate Student in Royal Veterinary College, Berlin, Germany, 1902; present position since 1898.

JAMES MCILVAINE PHILLIPS.....32 West Woodruff Avenue

Associate Professor of Comparative Pathology

M. D., University of Pennsylvania, 1898; Assistant Physician, Municipal Hospital, Philadelphia, 1898-1899; Special Student, Metropolitan Asylum Board Hospital, London, 1899; Lecturer on Pathology, Starling Medical College, 1900; Assistant Physician, St. Francis Hospital, 1901-1902; Assistant Professor of Veterinary Medicine, Ohio State University, 1903-1905; Associate Professor of Veterinary Medicine, ibid. 1905-1908; present position since 1908.

CLAIR ALBERT DYE.....1569 Worthington Street

Associate Professor of Pharmacy

G. Ph., Ohio State University, 1891; Ph. D., University of Berne, 1901; Post-Graduate Student in Chemistry and Pharmacy, Ohio State University; Assistant in Chemistry and Pharmacy, 1890-1894; Assistant in Pharmacy, 1894-1898; Assistant Professor of Pharmacy, 1898-1906; present position since 1906.

*EDWARD ELSWORTH SOMERMEIER.....

Associate Professor of Metallurgy and Mineralogy

G. Ph., Ohio State University, 1898; Assistant in Metallurgy and Mineralogy, 1898-1901; Chemical Assistant, Ohio Geological Survey, 1901-1903; Instructor in Metallurgy and Mineralogy, Ohio State University, 1901-1905; Assistant Professor of Metallurgy and Mineralogy, 1905-1906; present position since 1906.

FREDERICK EDWARD KESTER.....318 West Ninth Avenue

Associate Professor of Physics

M. E. (in E. E.), Ohio State University, 1895; M. A., Cornell, 1899; Ph. D., ibid., 1905; Scholarship in Physics, Cornell, 1898-1899; Student in Goettingen, 1903-1904; Cornell, 1904-1905; Fellow and Assistant in Physics, Ohio State University, 1895-1897; Assistant in Physics, ibid., 1897-1898; Instructor in Physics, ibid., 1899-1901; Assistant Professor of Physics, ibid., 1901-1907; present position since 1907.

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*Absent on leave, 1908-1909.

VERNON MORELLE SHOESMITH.....145 West Ninth Avenue

Associate Professor of Agronomy

B. Sc., Michigan Agricultural College, 1901; Assistant in Agronomy, Kansas State Agricultural College, 1901-1905; Assistant Professor of Agronomy, ibid., 1905-1907; Agronomist, Maryland Agricultural Experiment Station, 1907-1908; present position since January, 1908.

WILLIAM LUCIUS GRAVES.....1313 Forsythe Avenue

Associate Professor of English

B. A., Ohio State University, 1893; M. A., ibid., 1897; Instructor in High School, Coshocton, 1894-1895; Fellow and Assistant in Rhetoric and English Language, Ohio State University, 1895-1896; Assistant Professor of Rhetoric and English Language, ibid., 1896-1904; Assistant Professor of English, ibid., 1904-1908; present position since 1908.

CHARLES LINCOLN ARNOLD.....328 West Eighth Avenue

Associate Professor of Mathematics

B. Sc., Ohio State University, 1890; M. Sc., ibid., 1894; Student, University of Chicago, Summer, 1894-1895; Austin Scholar, Harvard University, 1903-1904; Assistant in Mathematics, Ohio State University, 1890-1899; Assistant Professor of Mathematics, ibid., 1899-1908; present position since 1908.

EDWIN F. CODDINGTON.....410 Fifteenth Avenue

Associate Professor of Mechanics

C. E., Ohio State University, 1896; M. Sc., 1897; Ph. D., University of Berlin, 1902; Emerson McMillin Fellow in Astronomy, Ohio State University, 1896-1897; Fellow in Astronomy, Lick Observatory, University of California, 1897-1900; Student in University of Berlin, Germany, 1900-1902; Assistant Professor of Mathematics, Ohio State University, 1902-1906; Assistant Professor of Mechanics, 1906-1908; present position since 1908.

EDGAR SHUGERT INGRAHAM.....1468 Michigan Avenue

Associate Professor of Romance Languages

A. B., Colgate University, 1897; Ph. D., University of Pennsylvania, 1903; Instructor in German, Colgate Academy, 1896-1897; Assistant in Modern Languages, Colgate College, 1897-1899; Student in France, Summer of 1897-1898; University Scholar in Romance Languages, Columbia University, 1899-1900; Student, University of Freiburg-in-Baden, Summer semester, 1900; Student at Sorbonne, Paris, 1900-1901; University Scholar in Romance Languages, Columbia University, 1901-1902; Instructor in Modern Languages, Blake School, New York City, 1901-1902; Harrison Fellow in Romance Languages, University of Pennsylvania, 1902-1903; Assistant Professor of Romance Languages, Ohio State University, 1903-1908; present position since 1908.

WILLIAM LLOYD EVANS.....1168 Fair Avenue

Associate Professor of Chemistry

B. Sc., Ohio State University, 1892; M. Sc., ibid., 1896; Ph. D., University of Chicago, 1905; Graduate Student, Chemistry, Ohio State University, 1894-1895; Fellow in Chemistry, University of Chicago,

1903-1905; Assistant in Ceramics, Ohio State University, 1896-1897; Instructor in Chemistry, Colorado Springs High School, 1897-1902; Assistant Professor of Chemistry, Ohio State University, 1905-1908; present position since 1908.

BERTHOLD AUGUST EISENLOHR.....55 King Avenue
Associate Professor of the Germanic Languages and Literatures

B. Ph., Ohio State University, 1898; M. A., ibid., 1905; Teacher of German and Physics, Portsmouth, Ohio, High School, 1892-1896; Assistant in German, Ohio State University, 1896-1897; Instructor in Columbus Latin School, 1897-1898; Instructor in Germanic Languages, Indiana University, 1900-1901; Instructor in German, Ohio State University, 1901-1906; Assistant Professor of the Germanic Languages and Literatures, ibid., 1906-1908; present position since 1908.

SAMUEL EUGENE RASOR..... 1594 Neil Avenue
Associate Professor of Mathematics

B. Sc., Ohio State University, 1898; M. A., ibid., 1902; S. M., University of Chicago, 1906; Fellow in Mathematics, ibid., 1898-1899; Professor of Mathematics, Amity College, Iowa, 1899-1900; Graduate Student, University of Chicago, four quarters, 1903-1906; Instructor in Mathematics, Ohio State University, 1901-1906; Assistant Professor of Mathematics, ibid., 1906-1908; present position since 1908.

CHARLES ST. JOHN CHUBB.....135 West Eighth Avenue
Associate Professor of Architecture

C. E. (Arch.), Ohio State University, 1904; Graduate Student in Architecture, University of Pennsylvania, 1906-1907; Assistant Professor of Architecture, Ohio State University, 1907-1908; present position since 1908.

JOHN HERMAN HUNT.....1323 Forsythe Avenue
Associate Professor of Electrical Engineering

B. Sc. in E. E., University of Michigan, 1905; with Western Electric Co., 1905-1906; Instructor in Electrical Engineering, Washington University, 1906-1907; Assistant Professor of Electrical Engineering, Ohio State University, 1907-1908; present position since 1908.

ROSS C. PURDY.....253 East Woodruff Avenue
Associate Professor of Ceramic Engineering

Cer. E., Ohio State University, 1908; Nat. B. M. Scholarship, 1898-1899; Chemist and Assistant Superintendent Mosaic Tile Co., 1899-1901; Chemist and Foreman, Glazing and Burning Departments, Roseville Pottery Co., 1901-1902; Assistant in Ceramics, Ohio State University, 1902-1905; Instructor in Ceramics, University of Illinois, 1905-1907; Assistant Professor of Clayworking and Ceramics, Ohio State University, 1907-1908; present position since 1908.

EUGENE FRANKLIN MCCAMPBELL.....22 East Seventeenth Avenue
Associate Professor of Bacteriology

B. Sc., University of Chicago, 1904; Graduate Student, ibid., Summer Quarter, 1906; Assistant in Bacteriology, University of Wisconsin,

Fall Term, 1905; Instructor, Pueblo (Colo.) High School, 1906; Instructor in Bacteriology, Ohio State University, 1906-1908; present position since 1908.

THOMAS SCOTT LOWDEN.....357 West Seventh Avenue

Acting Associate Professor of the Principles and Practice of Education

B. A., Thiel College, 1893; M. A., University of Wooster, 1895; Ph. D., Clark University, 1905; Student at University of Chicago, Summer, 1903; Clark University, 1904-1906; University of Berlin, 1907; Superintendent of Schools, Fredericksburg, Ohio, 1889-1892; Superintendent of Schools, Greenville, Pa., 1892-1899; Dean of Normal School and Professor of Psychology and Pedagogy, Normal School, Muncie, Ind., 1899-1901; Professor of Pedagogy and Principal of the Academy, De Pauw University, 1901-1904; Professor of Psychology and Pedagogy, Wisconsin State Normal School, Platteville, 1907-1908; present position since 1908.

ANNA KATHERINE FLINT.....316 West Ninth Avenue

Associate Professor of Domestic Art

B. L., University of Wisconsin, 1895; B. S., Teachers' College, Columbia University, 1906; Teacher of Domestic Art, Public Schools, 1897-1902; Teacher of Domestic Art, Stout Training School for Teachers, and Supervisor of Domestic Art, Menomonie (Wis.) Schools, 1902-1905 and 1906-1908; present position since 1908.

EDNA NOBLE WHITE.....Oxley Hall

Associate Professor of Domestic Science

B. A., University of Illinois, 1906; Student in Household Administration, University of Chicago, 1908; present position since 1908.

MARY REBECCA LAVER.....1475 Worthington Street

Associate Professor of Art

Graduate of Chicago Art Institute, 1900; Instructor, Normal Art Institute, two years; John Dewey Experimental School, one year; Supervisor of Drawing, Goshen, W. Lafayette, and Wabash, Ind., 1902-1907; Assistant Professor of Art, Ohio State University, 1907-1908; present position since January, 1909.

NORMA AUGUSTA SEARING.....182 East Fourteenth Avenue

Associate Director of Physical Education for Women

B. P. E., Temple University, Philadelphia Normal School of Physical Education, 1905; Graduated from the Philadelphia School of Anatomy, 1904; Samaritan Hospital, Summer, 1905; Physical Director for Women and Instructor in Anatomy and Physiology, Central State Normal School of Oklahoma, 1905-1907; Supervisor of Normal Course in Physical Education and Professor of Anatomy and Physiology, Wisconsin State Normal School (Stevens Point), 1907-1908; present position since 1908.

WILLIAM ABNER KNIGHT.....206 West Lane Avenue

Assistant Professor of Machine-Shop Practice

M. E., Ohio State University, 1900; thirteen years' practical experience in workshops; Assistant in the Industrial Department and Fore-

man of the Machine Shops, 1893-1898; Assistant in Industrial Arts and Instructor in Machine Work, 1898-1900; Instructor in Machine Work, 1900-1901; present position since 1901.

VERNON H. DAVIS.....

Assistant Professor of Horticulture

B. Sc. (Agr.), Ohio State University, 1900; M. S. A., Cornell University, 1901; Assistant in Horticulture and Forestry, Ohio State University, 1901-1902; Assistant Professor of Horticulture and Forestry, 1902-1908; present position since 1908.

HORACE JUDD.....281 East Thirteenth Avenue

Assistant Professor of Experimental Engineering

M. E., Ohio State University, 1897; M. Sc., ibid., 1899; Fellow and Laboratory Assistant in Mechanical Engineering, 1897-1899; Student in Experimental Engineering, 1897-1899; Student in Experimental Engineering at Cornell University and at Stevens Institute of Technology, Summer of 1898; Instructor in Department of Science and Technology, Pratt Institute, 1899-1902; present position since 1902.

ROBERT F. EARHART.....1602 Summit Street

Assistant Professor of Physics

B. Sc., Northwestern University, 1893; Ph. D., University of Chicago, 1900; Electrician, People's Power Company, Moline, Illinois, 1893-1897; Graduate Student, Johns Hopkins University, 1897-1898; Graduate Student, University of Chicago, 1898-1899; Fellow in Physics, ibid., 1899-1900; Instructor in Physics, Michigan Military Academy, 1900-1901; Instructor in Physics, Rose Polytechnic Institute, 1901-1903; present position since 1903.

THOMAS KENYON LEWIS.....239 West Tenth Avenue

Assistant Professor of Engineering Drawing

B. Sc., Ohio State University, 1894; Student, ibid., 1894-1895; Summers of 1897 and 1898, at Cincinnati Art Academy; Columbia University, 1906-1907; Assistant in Drawing, Ohio State University, 1894-1901; Instructor in Architecture and Drawing, ibid., 1901-1904; Assistant Professor of Architecture and Drawing, ibid., 1904-1906; present position since 1906.

EDGAR HOLMES MCNEAL.....120 Hamilton Avenue

Assistant Professor of European History

A. B., University of Chicago, 1896; Ph. D., ibid., 1902; Instructor in European History, Ohio State University, 1902-1905; present position since 1905.

FAYETTE AVERY MCKENZIE.....83 Sixteenth Avenue

Assistant Professor of Economics and Sociology

B. S., Lehigh University, 1895; Ph. D., University of Pennsylvania, 1906; Professor of Modern Languages and Social Science, Juniata College, 1897-1900; Graduate Student, University of Pennsylvania, 1900-1905, in Sociology, Economics, and American History; Master, Modern Languages, Blight School, Philadelphia, Pa., 1900-1903; Teacher, Indian Boarding School, Shoshone Agency, Wyoming, 1903-1904; present position since 1905.

CARSON SAMUEL DUNCAN.....185 East Fifteenth Avenue
Assistant Professor of English

B. A., Wabash College, 1901; M. A., ibid., 1902; M. A., Columbia, 1905; Graduate Student, Wabash College, 1902; Columbia University, 1904-1905; Teacher, Wabash College, 1902; Warsaw High School, 1903; Winona Technical Institute, 1904; present position since 1905.

GEORGE DAVID HUBBARD.....1333 Dennison Avenue
Assistant Professor of Geology

B. S., University of Illinois, 1896; M. S., ibid., 1898; A. M., Harvard University, 1901; Ph. D., Cornell University, 1905; Graduate Student in Geology and Geography, University of Illinois, 1896-1900; Harvard University, 1901-1902, Cornell University, 1903-1905; Assistant in Geology, University of Illinois, 1897-1900; Teacher of Geography, Eastern Illinois State Normal School, 1901-1903; Assistant in Physical Geography, Cornell University, 1903-1904; Instructor in Physical Geography, ibid., 1904-1905; Instructor in Geography, ibid., Summer of 1904 and 1905; present position since 1905.

ROY K. SCHALFLY.....1826 North Fourth Street
Assistant Professor of Civil Engineering

C. E., Ohio State University, 1903; present position since 1905.

ALBERT DANIEL FITZGERALD.....71 East Woodruff Avenue
Assistant Professor of Comparative Anatomy

D. V. M., Ohio State University, 1905; Instructor in Comparative Anatomy, Ohio State University, 1905-1906; Assistant Professor of Comparative Anatomy and Pathology, ibid., 1906-1908; present position since 1908.

ROBERT FISKE GRIGGS.....1507 Hunter Avenue
Assistant Professor of Botany

B. Sc., Ohio State University, 1903; M. A., University of Minnesota, 1906; Student at Minnesota Seaside Station, Season of 1905; Fellow in Botany, Ohio State University, 1905-1906; Instructor in Biology, Fargo College, 1903-1904; Professor of Biology, ibid., 1904-1905; present position since 1906.

WALTER THOMPSON PEIRCE.....449 West Sixth Avenue
Assistant Professor of Romance Languages

B. A., Ohio Wesleyan University, 1894; A. M., University of Michigan, 1896; Ph. D., Johns Hopkins University, 1906; Student, University of Michigan, 1895-1896; Western Reserve University, 1898-1901; Paris, 1898 and 1906; Johns Hopkins University, 1901-1903 and 1905-1906; Instructor in French, Case School of Applied Science, 1896-1901; Assistant Professor of Romance Languages, Indiana University, 1903-1905; present position since 1906.

JOHN BOWKER PRESTON.....290 East Fifteenth Avenue
Assistant Professor of Mathematics

M. A., University of Virginia, 1876; Student, University of Leipsig, 1878-1879; University of Berlin, 1879-1880; Associate Principal, Nor-

wood College, 1881-1884; Principal, University School, Covington, Ky., 1884-1886; Professor, Ogden College, 1886-1906; present position since 1906.

JAMES RENWICK WITHROW.....1619 Highland Street

Assistant Professor of Chemistry

B. S. (Chem.), University of Pennsylvania, 1899; Ph. D., ibid., 1905; Chemist, Barrett Manufacturing Co., Coal Tar Products, 1899; Charge of Testing and Research Laboratory and of Benzol and Light Oil Departments, same firm, 1900-1903; Harrison Scholar in Chemistry, University of Pennsylvania, 1903-1904; University Scholar in Chemistry, ibid., 1904-1905; Assistant Instructor in General Chemistry, University of Illinois, 1905; Instructor in Analytical Chemistry, ibid., 1906; present position since 1906.

FREDERICK COLUMBUS BLAKE.....1806 North High Street

Assistant Professor of Physics

Ph. B., University of Colorado, 1901; Ph. D., Columbia University, 1905; Fellow, Columbia University, 1903-1907; Student at Cambridge (Eng.), 1905-1906; at Berlin, 1906-1907; Assistant in Physics, University of Colorado, 1900-1901; Instructor, Leadville High School, 1901-1903; Instructor, University of Colorado Summer School, 1904; present position since 1907.

CARL RIGDON.....1379 Highland Street

Assistant Professor of Experimental Engineering

M. E., Ohio State University, 1905; Fellow in Experimental Engineering, 1905-1906; Erecting Engineer, Westinghouse Machine Co., 1906-1907; present position since November, 1907.

RALPH ROGERS.....10 West Woodruff Avenue

Assistant Professor of Engineering Drawing

B. S. M. E., West Virginia University, 1902; Instructor in Engineering Drawing, Ohio State University, 1904-1908; present position since 1908.

ROBERT MEIKELJOHN.....1528 Worthington Street

Assistant Professor of Engineering Drawing

M. E., Ohio State University, 1904; Instructor in Engineering Drawing, ibid., 1905-1906; present position since 1908.

MAY THOMAS.....1731 Summit Street

Assistant Professor of Germanic Languages and Literatures

Ph. D., University of Zurich, Switzerland, 1897; Student at the Universities of Wisconsin, Chicago, Leipsic, 1898-1903; Instructor, Milwaukee-Downer College, 1897-1898; Lockwood School, 1898-1901; Antioch College, 1903-1905; Instructor in German, Ohio State University, 1905-1908; present position since 1908.

ADOLF BUSSE.....66 East Fourteenth Avenue

Assistant Professor of the Germanic Languages and Literatures

A. B., Northwestern University, 1899; A. M., ibid., 1900; Ph. D., Harvard, 1906; Student, Northwestern University, 1899-1900; Berlin, 1900-1902; Harvard, 1902-1903; Assistant in German, Northwestern

University, 1899-1900; Harvard, 1902-1903; Instructor, University of Wisconsin, 1903-1904; Northwestern University, 1904-1906; Instructor in German, Ohio State University, 1906-1908; present position since 1908.

RAYMOND JESSE SEYMOUR.....1175 Highland Street
Associate Professor of Anatomy and Physiology

B. Sc., Ohio State University, 1900; M. S., Tufts College, 1901; M. D., Ohio Medical University, 1904; Fellow, Tufts College, 1900-1901; Assistant in Pathology, O. M. U., 1901-1903; Fellow, Ohio State University, 1903-1904; Assistant in Anatomy and Physiology, ibid., 1904-1906; Instructor, ibid., 1906-1908; present position since 1908.

EDMUND SEWALL MANSON, JR.....212 West Tenth Avenue
Assistant Professor of Astronomy

S. B., Massachusetts Institute of Technology, 1897; S. M., ibid., 1898; Student, ibid., 1897-1898; Computer, Lowell Observatory, 1899-1901; Assistant, Harvard Observatory (Peru), 1902-1907; Instructor in Astronomy, Ohio State University, 1907-1908; present position since 1908.

CHARLES E. BLANCHARD.....185 West Frambes Avenue
Assistant Professor of English

LL. B., University of Michigan, 1906; Instructor in English, Ohio State University, 1906-1908; present position since 1908.

JOHN ROSS CHAMBERLIN.....124 King Avenue
Assistant Professor of Civil Engineering

Assistant in Civil Engineering, Ohio State University, 1905-1908; present position since 1908.

GRACE MARIE BAREIS.....201 West Eleventh Avenue
Assistant Professor of Mathematics

B. A., Heidelberg University (Ohio), 1897; Fellow in Mathematics, Ohio State University, 1907-1908; present position since 1908.

ALFRED PAUL DACHNOWSKI.....175 West Eleventh Avenue
Assistant Professor of Botany

Ph. D., University of Michigan, 1906; Student, University of Berlin, 1900; University of Vienna, 1901; University of Michigan, 1903-1906; Assistant in Botany, ibid., 1903-1906; Substitute Assistant in Botany, Ohio State University, 1907-1908; present position since 1908.

ARCHIBALD MOWBRAY BURNHAM.....207 East Fifteenth Avenue
Assistant Professor of English

B. A., University of Toronto, 1898; M. Ph., University of Chicago, 1908; Special Teacher of English and Modern Languages in Secondary Schools, 1900-1906; Lecturer in English, University of Toronto, 1906-1907; present position since 1908.

LOUIS ALBION COOPER.....90 East Fourteenth Avenue
Assistant Professor of English

B. A., Harvard, 1905; M. A., University of Chicago, 1908; Student in English, University of Chicago, 1907-1908; Head of English Department, Rockford (Ill.) High School, 1905-1907; present position since 1908.

HARRY CLIFFORD RAMSOWER.....1558 Hunter Avenue
Assistant Professor of Agronomy

B. Sc. (Agr.), Ohio State University, 1906; Student in Civil and Mechanical Engineering, ibid., 1906-1908; present position since 1908.

WALTER LARABEE LEIGHTON.....90 East Fourteenth Avenue
Assistant Professor of English

B. A., Harvard, 1901; M. A., ibid., 1902; Ph. D., University of Virginia, 1908; Student at Harvard, 1901-1904; Teacher of English and History, Boston English High School, 1905-1906; Instructor in English, Washington University, 1906-1907; Teaching Fellow, University of Virginia, 1907-1908; present position since 1908.

OLIVER CARY LOCKHART.....1316 Forsythe Avenue
Assistant Professor of Economics and Sociology

B. A., Indiana University, 1903; M. A., ibid., 1905; Student, ibid., 1904-1905; Cornell University, 1905-1907; Teacher of History and English, Bluffton (Ind.) High School, 1903-1904; Assistant in Economics, Indiana University, 1904-1905; Instructor in Economics, Cornell University, 1907-1908; present position since 1908.

EDWIN PLATT TANNER.....1462 Neil Avenue
Assistant Professor of American History and Political Science

B. A., Columbia University, 1897; M. A., ibid., 1898; Ph. D., ibid., 1908; Graduate Student, ibid., 1897-1900; University Fellow in American History, ibid., 1899-1900; Instructor in History, High School, Stillwater, Minn.; Assistant in History, Syracuse University, 1901-1902; Instructor in History, ibid., 1902; Adelphi College and Academy, 1903-1907; Instructor in History, Syracuse University, 1907-1908; present position since 1908.

DANA JAMES DEMOREST.....1712 North Fourth Street
Acting Assistant Professor of Metallurgy and Mineralogy

B. Sc. (Chem. Eng.), Ohio State University, 1907; present position since 1908.

WALTER LYMAN UPSON.....1626 Summit Street
Assistant Professor of Electrical Engineering

B. S., Princeton University, 1899; E. E., ibid., 1902; M. S., ibid., 1903; M. E. E., Harvard, 1908; Student at Princeton, 1900-1903; University College, London, 1906-1907; Harvard, 1907-1908; Instructor in Electrical Engineering and Physics, Princeton, 1904-1906; present position since 1908.

CHARLES CLEMENTS MORRIS.....1375 Michigan Avenue
Assistant Professor of Mathematics

Ph. B., University of Michigan, 1899; A. M., Harvard, 1904; Graduate Student in Mathematics, ibid., 1902-1904; University Scholar, ibid., 1903-1904; Instructor in Mathematics, Purdue University, 1904-1908; present position since 1908.

JULIA TITSWORTH.....1475 Worthington Street
Assistant Professor of Art

WILLIAM C. MILLS.....78 West Tenth Avenue
Curator of Archaeology

B. Sc. (H. F.), Ohio State University, 1898; M. Sc., ibid., 1902; Curator and Librarian of the Ohio State Archaeological and Historical Society; Librarian, Ohio Academy of Science.

CHARLES PHILIP CROWE.....1627 North High Street
Instructor in Forging

Lebanon Normal School, Lebanon, Ohio; Teacher in Public Schools of Delaware and Union Counties, two years; Forge-shop Experience, seven years; Manufacturer of Steel Forgings and Springs, six years; Assistant in Industrial Arts and Forge Master, 1899; present position since 1900.

JOHN SATTERLEE TIDBALL.....351 Twentieth Avenue
Instructor in Engineering Drawing

B. S., Cornell University, 1880; Student, Art Students' League, New York City; Assistant in Architecture and Drawing, Ohio State University, 1902-1903; present position since 1903.

ALLANDO CASE.....90 West Maynard Avenue
Instructor in Vise Work

Machinist, four years; with Columbus Machine Co., in charge of testing floor, one year, and on erecting and road work, two years; Machinist, Ohio State University, 1904-1906; present position since 1906.

FREDERICA DETMERS.....1132 Highland Street
Instructor in Botany

B. Sc., Ohio State University, 1887; M. Sc., ibid., 1891; Assistant Botanist, Ohio Agricultural Experiment Station, 1889-1891; Botanist, ibid., 1891-1892; Science Teacher, North High School, Columbus, 1896-1906; present position since 1906.

W. J. NORRIS.....60 East Eighth Avenue
Instructor in Engineering Drawing

Fifteen years' experience as practical designer and illustrator.

FRANK KELTON BAILEY.....161 West Eleventh Avenue
Instructor in Physics

B. S., Colorado College, 1898; Ph. D., Clark University, 1906; Scholar and Fellow, ibid, 1898-1901, and 1904-1906; Assistant, Allegheny Observatory, 1901-1904; Assistant in Physics, Collegiate Department, Clark University, 1904-1906; present position since 1906.

CLARENCE CHARLES VOGT.....401 King Avenue

Instructor in Chemistry

A. B., Wooster University, 1904; Fellow in Chemistry, Ohio State University, 1904-1905; Assistant in Chemistry, 1905-1906; present position since 1906.

CLEMENT M. BEEM.....76 East Eleventh Avenue

Instructor in Patternmaking and Founding

Patternmaker, Buckeye Malleable Iron and Steel Casting Co., 1900-1904; Patternmaker and Assistant in Industrial Arts, Ohio State University, 1904-1908; present position since 1908.

ALFRED EWINGTON.....163 West Eleventh Avenue

Instructor in Romance Languages

A. B., McKendree College, 1897; A. M., ibid., 1898; Student in Romance Languages, University of Missouri, 1901-1902; Teacher, Romance Languages, Summer Session, ibid., 1902; Assistant Professor of Romance Languages, ad interim, University of Kansas, 1902-1903; Instructor in French, Washington University, 1903-1907; present position since 1907.

F. H. HASKETT.....229 West Eighth Avenue

Instructor in Architecture

A. B. NYSTROM.....91 West Tenth Avenue

Instructor in Dairy Mechanics

B. Sc. (Agr.), Kansas State Agricultural College, 1907; present position since 1907.

CHARLES SHEARD.....136 East Eleventh Avenue

Instructor in Physics

A. B., St. Lawrence University, 1903; M. A., Dartmouth College, 1907; Student in Physics, ibid., 1905-1907; Science Teacher, Waterville High School (N. Y.), 1903-1905; Instructor, Dartmouth College, 1905-1907; present position since 1907.

RICHARD HERMAN WILLIAMS.....1475 Worthington Street

Instructor in Animal Husbandry

B. S. A., Toronto University, 1905; M. S., University of Illinois, 1907; Student, ibid., 1906-1907; Assistant in Animal Husbandry, ibid., 1906-1907; present position since 1907.

*WILLIAM FRANKLIN GEPHART.....38 Eighteenth Avenue

Instructor in Economics and Sociology

B. A., Ohio State University, 1904; M. A., ibid., 1905; Fellow in Economics and Sociology, ibid., 1906-1907; Student, Summer Session, University of Chicago, 1907; present position since 1907.

GEORGE ROBERT BOTT.....1081 Hunter Avenue

Instructor in Engineering Drawing

M. E., Ohio State University, 1901; in charge of Department of Drawing, Miller Manual Labor School, 1901-1902; present position since 1907.

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*Absent on leave, 1908-1909.

CLARENCE ADDISON DYKSTRA.....1477 Worthington Street
Instructor in American History and Political Science

B. A., State University of Iowa, 1903; Student in History, University of Chicago, 1903-1904; Instructor, Pensacola Classical School, 1904-1906; Fellow in History, University of Chicago, 1906-1908; present position since January, 1908.

SAMUEL MORRIS.....39 West Eleventh Avenue
Instructor in Chemistry

B. A., Ohio State University, 1905; M. A., ibid., 1908; Teacher of Science, West Virginia Wesleyan College, 1905-1906; Assistant in Chemistry, Ohio State University, 1906-1908; present position since 1908.

EDWARD SPEASE.....1892 North High Street
Instructor in Pharmacy

B. Sc. (Phar.), Ohio State University, 1907; Assistant in Pharmacy, 1907-1908; present position since 1908.

WILLIAM LEANDER CLEVENGER..... 1558 Hunter Avenue
Instructor in Buttermaking

B. Sc. (Agr.), Ohio State University, 1906; Student, ibid., 1906-1907; present position since 1907.

WOLSEY GARNET WORCESTER.....389 West Fifth Avenue
Instructor in Ceramic Engineering

Laboratory Assistant in Ceramics, 1907-1908; present position since 1908.

FIRMAN EDWARD BEAR.....67 West Tenth Avenue
Instructor in Agricultural Chemistry

B. Sc. (Agr.), Ohio State University, 1908; present position since 1908.

EDWIN LONG BECK.....1463 Pennsylvania Avenue
Instructor in English

B. A., Ohio State University, 1908; present position since 1908.

ROBERT OSCAR BUSEY.....2190 Indiana Avenue
Instructor in the Germanic Languages and Literatures

B. A., University of Illinois, 1900; M. A., Harvard, 1906; Student at Halle-Wittenberg, Winter Semester, 1900; Ohio State University, 1904-1905; Harvard, 1905-1908; Teacher, Urbana (Ill.) High School, 1903-1904; Teaching Fellow, Ohio State University, 1904-1905; present position since 1908.

LELAND DALE DORNEY.....149 West Tenth Avenue
Instructor in Economics and Sociology

B. A., University of Michigan, 1908; present position since 1908.

LOUIS WALLIS.....36 East First Avenue
Instructor in Economics and Sociology

SARAH TRACY BARROWS.....1806 North High Street

Instructor in the Germanic Languages and Literatures

B. L., Iowa State College, 1891; M. L., Cornell University, 1893; Lehrerinnen-Seminar, Hanover, Germany, 1895-1896; Student, Summer of 1902, Hanover; Summers of 1903 and 1904, Halle; Summer of 1905, Freiburg; Summer of 1907, Berlin; Summer of 1908, Marburg; Teacher in North High School, Columbus, 1896-1907; Assistant in German, Ohio State University, 1900-1904; present position since 1908.

VITTORIO FALORSI.....1928 Indianola Avenue

Instructor in Romance Languages

D. L., Instituto di Studie Superiori, Florence, 1904; Student at Paris, Summers of 1904, 1906, 1908; Professor of Latin, Greek, and French, Collegio Massimo D' Azeglio, Florence, 1904-1908; Professor of Italian Literature, Istituto Florentino, 1905-1908; Professor of Italian, Summer University, Florence, 1907 and 1908; present position since 1908.

WILLIAM CLIFFORD MORSE.....1966 North High Street

Instructor in Geology

B. A., Ohio State University, 1906; M. A., ibid., 1908; Student in Zoology, Geology, and Botany, ibid., 1906-1907; Geology, ibid., 1907-1908; Fellow in Zoology and Entomology, ibid., 1906-1907; Fellow and Assistant in Geology, 1907-1908; present position since 1908.

ARTHUR EVERT ADDISON.....436 West Fifth Avenue

Instructor in Law

B. Ph., Ohio State University, 1895; LL. B., ibid., 1900; present position since 1908.

HARRY HATTON MCMAHON.....942 Madison Avenue

Instructor in Law

B. A., Princeton University, 1887; M. A., Columbia, LL. B., ibid., 1892; present position since 1908.

BERT WAYNE GEARHEART.....1356 Summit Street

Instructor in Law

Certificate in Law, Ohio State University, 1905; present position since 1908.

WILLIAM BARNEY COCKLEY.....316 West Seventh Avenue

Instructor in Law

B. A., Ohio State University, 1904; LL. B., ibid., 1908; Teacher, Ironwood (Mich.) High School, 1904-1905; present position since 1908.

CARMI A. THOMPSON.....374 West Sixth Avenue

Instructor in Law

B. Ph., Ohio State University, 1892; LL. B., ibid., 1895; Teacher in High School, Bement, Ill., two years; present position since 1908.

J. O. B. SMITH.....

Special Instructor in Horticulture

DAVID K. WATSON.....370 East Town Street
Special Lecturer in Law (1908-1909)
Ex-Attorney General of Ohio; Ex-Congressman; late member of the Federal Criminal Code Commission.

ALBERT B. GRAHAM.....130 West Lane Avenue
Superintendent of Agricultural Extension

KENNETH BAKER WARD.....1454 Neil Avenue
Assistant in Civil Engineering
C. E., Ohio State University, 1905.

ULYSSES W. DENMAN.....65 West Maynard Avenue
Assistant in Patternmaking

ALFRED HENRY BARNES.....325 West Tenth Avenue
Assistant in Physics
M. E. in E. E., Ohio State University, 1907; present position since 1907.

C. F. JACKSON.....132 East Eleventh Avenue
Assistant in Zoology and Entomology

J. THOMAS KIBLER.....45 West Tenth Avenue
Assistant in Physical Education for Men

RICHMOND LEE SHIELDS.....26 West Norwich Avenue
Assistant in Agricultural Extension
B. Sc. (Agr.), Ohio State University, 1907; present position since 1907.

CLIFFORD SHOEMAKER.....8 West Tenth Avenue
Assistant in Civil Engineering

CHARLES S. FISHER.....46 West Tenth Avenue
Assistant in Mechanical Engineering
M. E., Ohio State University, 1907; present position since 1907.

C. E. MCQUIGG.....1454 Neil Avenue
Assistant in Metallurgy and Mineralogy

DAVID RAYMOND KELLOGG.....176 West Ninth Avenue
Assistant in Physics
B. Sc., Rhode Island College of Agriculture and the Mechanic Arts, 1907; present position since 1907.

ADOLPH FEIEL.....560 East Main Street
Assistant in Anatomy and Physiology
Assistant Instructor in Histology, Starling Medical College, 1880-1898; Instructor in Histology, ibid., 1898-1907; present position since 1907.

IVAN STEINER.....473 West Fifth Avenue
Assistant in Milk Supply
B. Sc. (Agr.), Ohio State University, 1908.

HOWARD JOHNSON LUCAS.....292 East Seventeenth Avenue
Assistant in Chemistry
B. A., Ohio State University, 1907; M. A., ibid., 1908; Fellow, ibid., 1907-1908; present position since 1908.

J. WALTER SALE.....127 West Tenth Avenue
Assistant in Chemistry
B. A., De Pauw University, 1907; Fellow in Chemistry, Ohio State University, 1907-1908; present position since 1908.

WELLS H. MINOR, E. M.....19 West Tenth Avenue
Assistant in Mine Engineering
E. M., Ohio State University, 1908.

HENRY H. SEVERIN.....49 East Eighteenth Avenue
Assistant in Zoology and Entomology
B. A., University of Wisconsin, 1905; M. A., ibid., 1907; Fellow, Ohio State University, 1907-1908; present position since 1908.

A. B. LANDRUM.....142 East Long Street
Assistant in Anatomy and Physiology

L. C. GATEWOOD.....Station B
Assistant in Anatomy and Physiology
B. A., Ohio State University, 1907.

GATEWOOD.....Station B
Assistant in Anatomy and Physiology
B. A., Ohio State University, 1907.

W. H. PALMER.....
Assistant in Animal Husbandry (Winter Course)

HENRY WILLIAM VAUGHAN.....
Assistant in Animal Husbandry (Winter Course)
B. Sc. (Agr.), Ohio State University, 1908.

ORVILLE P. COCKERILL.....119 West Tenth Avenue
Assistant in Moot Court
Ph. B., Ohio State University, 1902; LL. B., ibid., 1907.

*CLAUDE VICTOR BUCHER.....1262 Bryden Road
Assistant in Mechanics
C. E., Ohio State University, 1908.

CHRISTIAN NUSBAUM.....235 West Tenth Avenue
Assistant in Physics
B. A., Ohio State University, 1908.

REGINALD CLIFTON COLLISON.....1272 Courtland Avenue
Assistant in Agricultural Chemistry
B. Sc. (Agr.), Ohio State University, 1908.

HELEN GALLEN.....231 Buttles Avenue
Student Assistant in European History

ROBERT J. SIM.....47 West Tenth Avenue
Student Assistant in Zoology and Entomology

*Resigned April, 1909.

*V. L. WILDERMUTH.....35 West Lane Avenue
Student Assistant in Zoology and Entomology

HARRY EVANS.....226 West Ninth Avenue
Student Assistant in Crops

GEORGE LIVINGSTON.....67 West Tenth Avenue
Student Assistant in Soils

E. J. GILBERT.....173 West Ninth Avenue
Student Assistant in Engineering Drawing

HARRY NOLD.....155 West Tenth Avenue
Student Assistant in Mine Engineering

C. S. STEVENSON.....51 West Ninth Avenue
Student Assistant in Mine Engineering (First Term)

F. E. NIEDING.....88 West Ninth Avenue
Student Assistant in Mine Engineering (First Term)

KATHRYN DARNELL.....Grove City, Ohio
Student Assistant in Physical Education for Women

LIBRARY ASSISTANTS

HARRIET TOWNSHEND.....53 West Eleventh Avenue
Assistant in Library

MAUD DOROTHY JEFFREY.....161 East Fourteenth Avenue
Reference Librarian
B. Ph., Ohio State University, 1895.

GERTRUDE STOWELL KELLICOTT.....1737 Summit Street
Accession Librarian

MIRPAH G. BLAIR.....1737 Summit Street
Head Cataloguer

CHARLES W. REEDER.....183 West Ninth Avenue
Assistant Reference Librarian
B. A., Ohio State University, 1906.

ELIZABETH SMYTHE.....242 East Gay Street
Assistant in Library

LILLIAN S. HUFFMAN.....1374 Forsythe Avenue
Cataloguer
B. Ph., Ohio State University, 1899.

RUSSELL J. BURT.....1100 Neil Avenue
Night Assistant

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*Resigned April 1, 1909.

ADA S. COUILLARD.....1768 Summit Street
Assistant Accession Librarian

BLANCHE L. SEIPEL.....312 West Seventh Avenue
Catalogue Assistant

NON-RESIDENT INSTRUCTORS IN THE SUMMER TERM

ELWOOD A. EMERY, B. L., B. S.....Chicago, Ill.
Professor of Music, Chicago Conservatory of Music

THOMAS S. LOWDEN, Ph. D.....Platteville, Wis.
Professor of Psychology, State Normal School

EMMA F. MCCALLY.....Chicago, Ill.
Instructor in Drawing, Painting, and Designs, Art Institute of Chicago

EMMA E. MCKINLEY, B. Sc.....Dayton, Ohio
Supervisor of Domestic Science, Public Schools

W. E. SIMONDS, Ph. D.....Galesburg, Ill.
Professor of English, Knox College

GEORGE R. TWISS, M. A.....Cleveland, Ohio
Head of Physics Department, Central High School

NON-RESIDENT LECTURERS IN THE SUMMER TERM

MARY EILEEN AHERN.....
Editor of "Public Libraries"

W. H. BRETT.....Cleveland, Ohio
Librarian, Public Library

W. R. COMINGS, M. A.....Elyria, Ohio
Superintendent of Schools

CHARLES B. GALBREATH.....Columbus, Ohio
State Librarian

LORENZO D. HARVEY, Ph. D.....Menommie, Wis.
Superintendent of Schools

EDMUND A. JONES, Ph. D.....Columbus, Ohio
State Commissioner of Common Schools

JESSE V. MCMILLAN, A. M.....Marietta, Ohio
Superintendent of Schools

NON-RESIDENT INSTRUCTORS AT THE LAKE LABORATORY

E. L. RICE, Ph. D.....Delaware, Ohio
Professor of Zoology, Ohio Wesleyan University

MALCOLM E. STICKNEY, A. M.....Granville, Ohio
Assistant Professor of Botany, Denison University

LYNDS JONES, Ph. D.....Oberlin, Ohio
Associate Professor of Zoology, Oberlin College

CHARLES BROOKOVER, B. Ped., M. S.....Akron, Ohio
Professor of Biology, Buchtel College

W. B. HERMS, A. M.....Cambridge, Mass.
Fellow in Zoology, Harvard University

FELLOWS

CECIL E. BOORD.....230 West Ninth Avenue
Fellow in Chemistry
B. A., Wabash College, 1907.

*JAMES PARK CALDERWOOD.....32 East Sixteenth Avenue
Fellow in Experimental Engineering
M. E., Ohio State University, 1908.

STANLEY EDGAR COLLISON.....1272 Courtland Avenue
Fellow in Agricultural Chemistry
B. Sc. (Agr.), Ohio State University, 1908.

CHARLES C. GRANT.....
Fellow in Experimental Engineering

FRED BROWNE GROSVENOR.....64 Buttles Avenue
B. A., Ohio State University, 1908.

EMILY HOLLISTER.....41 West Eleventh Avenue
Fellow in Zoology and Entomology
B. A., Ohio State University, 1908.

JESSIE HUTSINPILLAR.....1447 Highland Street
Fellow in English
B. A., Wellesley, 1902.

MARTHA KOEHNE.....
Fellow in Chemistry
B. A., Ohio State University, 1908.

*Resigned April 1, 1909.

GERALD PIERCE LAWRENCE.....449 West Seventh Avenue
Robinson Fellow in Engineering
M. E., Ohio State University, 1908.

CHARLES E. MATHENY.....99 East Woodruff Avenue
Fellow in American History

LOU HELEN MORGAN.....41 West Eleventh Avenue
Fellow in Chemistry
B. Ph., Marietta College, 1905; M. A., ibid., 1907.

H. C. SEVERIN.....49 East Eighteenth Avenue
Fellow in Zoology and Entomology
B. A., University of Wisconsin, 1907; M. A., Ohio State University, 1908.

EARL A. SALIERS.....72 West Woodruff Avenue
Fellow in Economics and Sociology
B. S., Heidelberg University, Tiffin, Ohio, 1908.

LEROY W. ROUSH.....162 East Thirteenth Avenue
Fellow in Electrical Engineering
M. E., in E. E., Ohio State University, 1908.

GEORGE W. STRATTON.....230 West Ninth Avenue
Fellow in Chemistry
B. A., University of Colorado, 1907.

CARL JOSEPH WEST.....328 West Ninth Avenue
Fellow in Mathematics
B. A., Ohio State University, 1908.

EDGAR JOHN WITZEMANN.....161 West Eighth Avenue
Fellow in Chemistry
B. A., John Millikin University, 1907.

*GEORGE A. WASHBURNE.....
Fellow in American History
B. A., Ohio State University, 1907.

CHARLES G. WOOD.....173 West Ninth Avenue
Fellow in Chemistry

DAVID M. FYFFE.....R. D. 2, Columbus, Ohio
Superintendent of Live Stock

JOHN CHISHOLM.....University Farm House
Superintendent of University Farm

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*Resigned November 30, 1908.

G. W. HOOD.....57 West Eighth Avenue
Florist

GUSTAV BRUDER.....487 Kelton Avenue
Band Master

F. E. Jones.....125 West Eighth Avenue
Storekeeper (Chemical Store Room)

L. N. FUNK.....16 West Lane Avenue
Assistant Storekeeper

STANDING COMMITTEES OF THE UNIVERSITY FACULTY

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(No organization)

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PROFESSOR WARDALL, *Chairman*
ASSOCIATE PROFESSOR FLINT, *Secretary*

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DR. WINGERT, *Chairman*
CAPTAIN CONVERSE, *Secretary*

OHIO STATE UNIVERSITY

LOCATION

The University is situated within the corporate limits of the City of Columbus, two miles north of the Union Station and about three miles from the State Capitol. The University grounds consist of four hundred and thirty-three acres, of which about three hundred and twenty-three acres are devoted to agricultural and horticultural purposes.

The University may be reached by either the North High Street or the Neil Avenue electric cars.

HISTORY

The land grant made by the United States under an act approved by President Lincoln, July 2, 1862, provided that there should be granted to each state an amount of public land equal to thirty thousand acres for each Senator and Representative to which the state was entitled by the apportionment of the census of 1880. The proceeds under this act were to constitute a perpetual fund, the capital of which was to remain forever undiminished, and the interest of the same was to be inviolably applied by each state which should take and claim the benefits of the act to the endowment, support, and maintenance of at least one "college where the leading objects shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

Governor Tod, in November, 1862, brought the subject before the State Board of Agriculture and later to the atten-

tion of the Legislature. In January, 1864, Hon. Columbus Delano introducted a bill accepting the grant. This became a law February 9, 1864, and pledged the faith of the state to the performance of all the conditions and provisions contained therein. In 1866, an act introduced by Hon. J. T. Brooks was passed, which provided for the establishment of the Ohio Agricultural and Mechanical College, but the provisions were not carried into effect, and a second act, introduced by Hon. R. P. Cannon, was passed in 1870, entitled, "An act to establish and maintain an Agricultural and Mechanical College in Ohio." Under the provisions of this act the institution was located in Columbus, and the Board proceeded to the organization of the college and the election of a faculty of instruction. The institution was opened for the reception of students on the seventeenth day of September, 1873.

In 1878 the Legislature passed "An act to reorganize and change the name of the Ohio Agricultural and Mechanical College and to repeal certain acts therein mentioned." The act provided that the institution should be hereafter designated as "The Ohio State University." Up to this time but one appropriation had been made by the state for the support of the institution. With the reorganization came the larger and broader view of the state's relation to public education, and since that time the Ohio State University has enjoyed a more generous support by the state.

The original endowment has been supplemented, and the objects of the University promoted, by a permanent annual grant from the United States, under an act of 1890, by special appropriations of the General Assembly, and, in 1891, by a permanent annual grant from the state, which grant was doubled by the Legislature of 1896. In accordance with the spirit of the law under which it is organized, the State University aims to furnish ample facilities for education in the liberal and industrial arts, the sciences and

the languages, and for thorough technical and professional study of agriculture, engineering in its various departments, veterinary medicine, pharmacy, and law. Through the aid which has been received from the United States, and from the state, it is enabled to offer its privileges, with a slight charge for incidental expenses, to all persons of either sex who are qualified for admission.

ADMINISTRATION AND ORGANIZATION

ADMINISTRATION

The governing body of the Ohio State University is a Board of Trustees, appointed by the Governor of the state and confirmed by the Senate, for terms of seven years.

Under the Board of Trustees the management is vested in the President, as the executive head of the University, and in the University Faculty, whose duties are legislative.

The President assigns members of the instructional force to membership in the faculties of the several colleges in accordance with the rules of the University Faculty. These faculties have jurisdiction in all matters that pertain exclusively to the colleges they represent, subject to higher University authority. The executive committees of the several colleges, composed of the deans and other members appointed by the deans, have charge of minor questions of discipline and administration.

ORGANIZATION

The Ohio State University embraces seven colleges: (1) The College of Agriculture and Domestic Science, (2) the College of Arts, Philosophy, and Science, (3) the College of Education, (4) the College of Engineering, (5) the College of Law, (6) the College of Pharmacy, (7) the College of Veterinary Medicine.

The College of Agriculture and Domestic Science offers four-year courses in Agriculture, Horticulture and Forestry, and Domestic Science, and short courses (two years) in Agriculture and Horticulture, and winter courses (ten weeks) in Agriculture, and Dairying, and a four-weeks winter course in Domestic Science.

The College of Arts, Philosophy, and Science offers work in the Undergraduate Courses (four years), in the Graduate School (three years), and in the Lake Laboratory (summer term).

The College of Education offers work in the Undergraduate Courses (two years based on two years of Arts College work), Graduate Courses in Education, and certain courses (two years) leading to a certificate.

The College of Engineering offers four-year courses in Architecture, Ceramic Engineering, Chemical Engineering, Civil Engineering, Electrical Engineering, Industrial Arts, Manual Training, Mechanical Engineering, Mine Engineering, and short courses (two years) in Clay Working, Industrial Arts, and Mining.

The College of Law offers an Undergraduate Course of three years.

The College of Pharmacy offers a Course in Pharmacy of four years, and a Short Course in Pharmacy of two years.

The College of Veterinary Medicine offers a Course in Veterinary Medicine of three years.

The Summer Term of the University offers courses related to the regular work of the colleges, but adapted to the needs of persons who are unable to take advantage of the courses during the usual academic year.

DIVISIONS

In October, 1908, the instructional force was organized into fifteen committees or divisions whose duty it was to consider new courses and changes in courses with a view to increasing the efficiency of related departments, in order that needless duplications of work might be prevented and that better adjusted and correlated courses might be offered. These divisions, as at present constituted, are as follows:

DIVISION I. *Languages,* including English, Germanic Languages and Literatures, Greek Language and Litera-

tures, Latin Language and Literatures, and Romance Language and Literatures.

DIVISION II. *Philosophy and Education,* including Philosophy, Psychology, History and Philosophy of Education, School Administration.

DIVISION III. *History and Economics,* including American History and Political Science, Economics and Sociology, European History.

DIVISION IV. *Pure and Applied Mathematics,* including Astronomy, Mathematics, Mechanics, and Physics.

DIVISION V. *Chemistry,* including Chemistry, Agricultural Chemistry, Ceramics, Metallurgy, and Pharmacy.

DIVISION VI. *Biology,* including Anatomy, Animal Husbandry, Agronomy, Bacteriology, Botany, Horticulture and Forestry, Zoology and Entomology, Geology, and Comparative Anatomy.

DIVISION VII. *Art and Architecture,* including Art, Architecture, Engineering Drawing.

DIVISION VIII. *Mechanical Drawing,* including Engineering Drawing, Physics, Industrial Arts, Mechanics, Electrical Engineering, and Mechanical Engineering.

DIVISION IX. *Civil Engineering,* including Engineering Drawing, Physics, Mechanics, Astronomy, Mine Engineering, Architecture, and Civil Engineering.

DIVISION X. *Chemical Engineering,* including Engineering Drawing, Physics, Mechanics, Metallurgy, Chemistry, Mine Engineering, Mechanical Engineering, Ceramic Engineering.

DIVISION XI. *Agriculture,* including Agricultural Chemistry, Agronomy, Animal Husbandry, Dairying, Horticulture, Forestry, Meterology, and Rural Economics.

DIVISION XII. *Law,* including all the departments of the College of Law.

DIVISION XIII. *Veterinary Medicine,* including all the departments of the College of Veterinary Medicine.

DIVISION XIV. *Domestic Science,* including the department of Domestic Science.

DIVISION XV. *Physical Culture,* including Military Science and Tactics, Physical Education for Men, and Physical Education for Women.

DEGREES

FIRST DEGREES

The following baccalaureate degrees are conferred at graduation upon those who have successfully completed the regular courses leading to such degrees and who have fulfilled all other requirements of the University:

Bachelor of Arts
Bachelor of Science in Agriculture
Bachelor of Science in Horticulture and Forestry
Bachelor of Science in Domestic Science
Bachelor of Science in Education
Bachelor of Science in Chemical Engineering
Bachelor of Science in Industrial Arts
Bachelor of Science in Pharmacy
Ceramic Engineer
Civil Engineer
Civil Engineer in Architecture
Engineer of Mines
Mechanical Engineer
Mechanical Engineer in Electrical Engineering
Bachelor of Laws
Doctor of Veterinary Medicine.

HIGHER DEGREES

In the College of Arts, Philosophy, and Science:

Master of Arts
Doctor of Philosophy.

Advanced degrees are also given for graduate work in the technical colleges.

BUILDINGS

UNIVERSITY HALL

University Hall contains the executive offices, the office of the Secretary of the Board of Trustees, the offices of the Dean and the Scretary of the College of Arts, Philosophy, and Science, the assembly room (seating twelve hundred persons), four halls for literary societies, the Y. M. C. A. and Y. W. C. A. rooms, the Young Women's room, and lecture and seminary rooms for the departments of Economics, Education, English, German, Greek, History, Latin, Mathematics, Political Science, Philosophy, Psychology, and Romance Languages. An electric passenger elevator connects all floors.

BOTANICAL HALL

Botanical Hall accommodates the laboratories, lecture rooms, and museum of the department of Botany. Connected with this building is a large greenhouse and propagating house.

ORTON HALL

Orton Hall contains the geological, paleontological, anthropological, and economic museums and collections; the petrographical, geographical, and paleontological laboratories; and lecture rooms for the department of Geology. The general University library and reading rooms are also located in Orton Hall.

HAYES HALL

Hayes Hall is devoted to instruction in Industrial Arts, Shopwork, and Domestic Science. It contains the model dining room, kitchen, and laboratory of the department of Domestic Science, lecture rooms, the machine shop, the

forge shop, and the foundry, and the carpenter and pattern shops. The Department of Art is also located in this building.

HORTICULTURAL HALL

Horticultural Hall contains recitation rooms and indoor laboratories of the departments of Horticulture and Forestry. An extensive greenhouse is attached.

VETERINARY LABORATORY

The Veterinary Laboratory is the headquarters of the College of Veterinary Medicine. It contains the veterinary museum, and laboratories of pharmacology, pathology, histology, and bacteriology; rooms for clinical demonstrations, incubator room, a large amphitheatre, lecture halls, and a reading room.

THE OBSERVATORY

The Emerson McMillin Observatory is the gift of Mr. Emerson McMillin, of New York. It contains the telescope, the astronomical library, lecture room and laboratory, photographic dark room, comparator room, instrument shop, spectroscopic laboratory, a zenith telescope room, and theodolite room; near by is the transit house.

TOWNSHEND HALL

This building is the headquarters of the College of Agriculture. It contains lecture rooms, a reading room, and extensive laboratories for Agricultural Chemistry, for work in soils and farm crops, and for dairying; rooms for pasteurizing, refrigerating, butter-making, cheese-making, cheese-curing, and dairy mechanics; the agricultural museum, and soil storage-room. Detached from the main building, but connected with the soil storage room by a tramway, is a glass house for the study of soils and the experimental growth of plants. Connected with Townshend Hall is a building from which power and steam are fur-

nished for the dairy. The Townshend Literary Society has a room in Townshend Hall seating two hundred people.

BIOLOGICAL HALL

Biological Hall accommodates the departments of Entomology and Zoology, and Anatomy and Physiology. It contains lecture rooms, preparation rooms, general and special laboratories, and the museums of these departments.

THE GYMNASIUM AND ARMORY

The Gymnasium and Armory has a drill hall and gymnasium floor eighty feet wide by one hundred and fifty feet long. There is a running track around the entire room about twelve feet from the floor, back of which is a visitors' gallery seating about seven hundred persons.

PAGE HALL

Page Hall is occupied by the College of Law. The first story is utilized for class and lecture rooms, seven in number with seating accommodations for five hundred students, and for the offices of the Dean, the Secretary, and the Faculty. On the second floor are two large reading rooms, a fire-proof room for the book stacks, designed ultimately to give shelving space to 50,000 volumes.

BROWN HALL

Brown Hall is devoted to Civil Engineering, Architecture, and Engineering Drawing. The building is two stories high, with basement above grade line. It consists of a main structure with a frontage of 217 feet, and two short wings in the rear.

PHYSICS HALL

This building is 105 feet long by 102 feet deep, four stories high. In the basement are two large electrical laboratories, a photometer room, two constant-temperature

rooms, a storage-battery room, dynamo room, and shop. The first floor contains a large sophomore laboratory and smaller advanced laboratory, apparatus room, balance and standards room, mercury room, offices, etc. On the second floor are a large lecture room, seating 250, a smaller lecture room, apparatus room, chemical laboratory, photographic dark rooms, and instructor's room, while the third floor has a grating room, elementary laboratory, and two class rooms.

CHEMISTRY HALL

Chemistry Hall accommodates the departments of Chemistry and Pharmacy. The building is a large two-story brick, with a well-lighted basement. In the basement are two large laboratories for elementary students, accommodating 800 students. In addition there are a number of small rooms designed for work in industrial chemistry. The west half of the first floor is occupied by the College of Pharmacy. The east half of the first floor consists of a large laboratory for organic chemistry with accommodations for sixty students, a lecture room, a research laboratory, a library room, and the office and private laboratory of the Professor of Chemistry. The central room of the first floor is occupied by the store room, which always has on hand a complete stock of all necessary materials for chemical work. On the second floor are the offices, laboratories and lecture rooms of the professors of physical chemistry and of analytical chemistry.

THE SCHOOL OF MINES BUILDING

This building accommodates the departments of Metallurgy and Mineralogy, Mine Engineering, and Ceramics. It is a substantial three-story brick structure, 220 feet long by 70 feet wide, with two one-story fire-proof wings, 40 by 50 feet. The Department of Mine Engineering is equipped with a lecture room, museum and model room, a large

drawing room, photographic room, blue-printing room, a room for surveying instruments, and a shop for their adjustment and repair, a workshop for model and apparatus making, a ventilating plant, consisting of fans in the basement and long pipe systems in the attic, by which the ventilation of mines may be illustrated and the flow of air under low heads studied. The department of Mineralogy and Metallurgy is equipped with an office, two large lecture rooms, a large mineral collection, and a room for blow-pipe analysis and determinative mineralogy, a metallurgical museum, a chemical laboratory, and instructor's laboratory, a sampling and ore-dressing plant, an assay room with furnaces and special laboratories for the ultimate analysis of fuels, for gas analysis, for calorimetry, for metallography, and for research. The equipment of the Ceramics department includes lecture room, museum, chemical and physical laboratories, a large drafting room, and a special laboratory for teaching and research in the silicate industries. In addition a large room has been set aside for library and reading room purposes for the joint use of the three departments.

THE ENGINEERING LABORATORY

This building contains the recitation rooms and laboratories of the departments of Mechanical Engineering and Electrical Engineering. It is of modern shop construction, with saw-tooth roof, and is made up of one 48-foot and seven 30-foot divisions, which, together with enclosed galleries at the sides, give a total width of 310 feet. The enclosed galleries with the space under them are used for special laboratories, class rooms, and offices. Each division is abundantly lighted by sash occuping almost the whole area of the north slopes of the roof and thus admitting only diffused light.

In the portion of the building devoted to Mechanical Engineering are constructed nine concrete cisterns, a well

thirty feet deep, and a flume. Here also is the laboratory for the testing of materials and the steam machinery and gas engine laboratories. In connection with the boiler room is a 100-foot chimney with obstruction platforms at different levels. The double fan system of heating and ventilation is arranged so as to be made use of in experimental and research work.

In the Electrical Engineering laboratories are provisions for electric railway testing and high potential experiments. The laboratories for alternating and direct current work are separated by a wire partition, an instrument room being located on the dividing line.

A GROUP OF AGRICULTURAL BUILDINGS

These buildings consist of a Judging Pavilion and two barns. They are of a uniform style of architecture, and are built of brick with limestone trimmings and red tile roofs.

Live Stock Judging Pavilion

This building consists of a front portion 21x62 feet, used for offices and class rooms, and a rear portion 54x112 feet in greatest dimension. In front an open porch nine and one-half feet wide leads into a hallway of the same width. On the left of the hall is a suite of four office rooms, and on the right three offices. The second floor has two class rooms and the third floor one class room and a dark room for photography. The main feature of the building is the Judging Pavilion. This has a width of fifty feet with a tan-bark arena 20x112 feet. The north and south ends of this room have double doors ten feet wide, through which teams may be driven at speed that students may study the gaits of horses. A tier of platforms provides seating capacity for several hundred persons. A series of large doors, hung on overhead tracks, provide for changing this room into three rooms, so that three classes may be engaged in the building judging stock at one time.

Horse Barn

The Horse Barn has a main frontage of 63 feet and a depth to the wings of 48 feet. Two wings extend back of the main front, each having a width of 35 feet and a length of 82 feet. The wings cover an extreme width of 108 feet back of the front portion, with an unpaved yard between, 39 feet wide. In this yard is an open shed 20 feet wide. The main part of this barn has a concrete floor laid off in grooved blocks 6x12 inches. One-half of the front is reserved for a coach room, the other and north half, for a farm wagon room. Connected with each room is a harness room, a closet for tools, a small water trough, hitching and grooming space and wash rack. The south wing contains twelve box and six open stalls for light horses. The north wing contains six box and fourteen open stalls for farm and work horses. Each wing has an isolation box stall. There is also a soak stall. Each wing has clay floors both in stalls and alleys. Fire doors, when closed, cut off each wing from the main front.

Cattle Barn

The Cattle Barn consists of a main front 144 feet north and south, by 48 feet deep east and west. On the west are two wings, approximately 104 feet long and 38 feet wide. The south wing, which is used for dairy cattle, has a milk receiving room on its south side 12½x17 feet. Beneath the roadway at the entrance to the barn is a root cellar 15¼x17 feet. On the first floor of the barn is located the office of the superintendent of live stock, at the right of the main entrance. On the left are the feed and grain bins. There are six of these bins, which open at the floor into down chutes which lead into the feed mixing room on the basement floor. Platform hay scales, with reading beam in the superintendent's office, are just within the main entrance.

The basement floor of the main barn is 78 feet long, and has a rough covering of concrete. A passageway 17 feet wide extends the entire length. On the north end, under an extension of the main building, are four box stalls for bulls, opening into yards. On the east side is a feed mixing room; a milling room; a storage room; and isolation stall for sick animals. The south end contains sixteen calf pens, varying in size from 5x8 to 6x9. In the dairy wing are thirty-four Drown stalls and two box stalls and a brick, enclosed room for operating a milking machine. The cows face a feeding alley five feet wide. A continuous concrete manger about two feet wide at the top extends along the front of the stalls. A concrete silo 16 feet inside diameter and 36 feet high, is located at the west end of each wing, directly connected with the feeding alley. The beef cattle wing contains nine box stalls along the north side. A six-foot passageway passes along in front of the box stalls, with nine double open stalls and one single on the south of the alley. Each wing has a fire door, which when closed, separates the wing from the main part.

THE NEW VETERINARY CLINIC BUILDING

This building, to cost $90,000, will be located just north of the veterinary laboratories. It will be built of red brick with a roof of green tile, the main portion being two stories in height. Underneath will be a high basement with a ground level entrance from the rear. The building is 255 feet long and of varying width from 40 to 70 feet. It consists of a central portion, two stories high, with basement, and two wings of one story each. The central portion contains a large clinic hall (50x60 feet), lighted by a skylight, and drug and instrument rooms, public and private offices, surgical museum, rooms for house-surgeon, and a large surgical amphitheatre equipped with every modern facility of practical value. The first floor is connected with the

basement of this section of the building by a concrete runway. In the basement are special water stalls and dark rooms for opthalmoscopic examinations. To the right and left of the clinic hall are the wards for large animals. Forty patients can be accommodated in these wards. The floor will be asphalt and all partitions of metal and concrete. This will contribute greatly to the sanitation of these rooms, for besides good light and fresh air, it is essential that the wards be kept scrupulously clean and be readily disinfectable. Two powerful electric driven fans will draw out all odor and bad air.

At the end of the south ward is the section for small animals—practically a separate building with no communicating doors between. This wing will contain the offices for the instructor, a general ward for ordinary non-infectious diseases, special wards for infectious diseases, skin diseases, rabies, a spacious skylight operating room, kitchen, bath room, dark rooms, drug and instrument rooms, museum, and an amphitheatre seating one hundred. In all wards of this section the floors will be cement and the walls wainscoted to the height of eight feet with white enamel brick.

At the end of the north ward (for large animals) is the pathological section, which is now an adjunct of all hospitals. This section, like the one for small animals, is separate from the central section of the building, the only direct communication being a doorway in the basement. It contains the office of the teacher of pathology, dark room, class room, microscopical laboratory, museum, room for experimental animals, and a large mortuary where necropsies are held upon all patients dying in the various clinics. A small eight-stall ward for the isolation of animals suffering from contagious diseases will be constructed away from the main building. Each stall will be floored with concrete and the walls wainscoted with enamel brick.

THE STUDENT BUILDING

As the name implies, the building is dedicated to special student needs which are unmet by any of the other sturctures on the campus. The necessity for greater beneficent social advantages among a student body of between two and three thousand is here recognized. This building provides a general meeting place of the most democratic character where every legitimate student interest is represented.

The main floor contains the office, lobby, and writing room. The lobby is spacious and will be furnished in as attractive and home-like a style as possible. On this floor is a students' postoffice, visitors' room, check room, and recreation hall. The basement contains a large dining room, which will seat at least two hundred and fifty, a private dining room, a barber shop, and bowling alleys.

On the second floor are the Y. M. C. A. rooms, committee rooms, and a large trophy hall which occupies the central portion of this floor. Here there are two large rooms which may be used separately or thrown together for the use of associations of various sizes. These will be known as the music rooms and will be available for the meetings of the student musical organizations. On the third floor is the auditorium, the offices of the student publications, and the rooms of the steward and janitor.

OXLEY HALL

This building provides accommodations for fifty-five young women. In the basement is a dining room, kitchen, and laundry; on the first floor are four double and three single rooms, the house superintendent's living room and office, and the parlors; on the second and third floors are single and double rooms for students; in the attic are large store rooms.

Residences—There are eight dwelling houses upon the University campus. Six of these are brick and two are

frame structures. One is occupied by the President of the University, six by professors, and the eighth is the farm house.

POWER PLANT

The boiler room is 38x100 feet, and is equipped with five 150-horsepower boilers, with Babcock and Wilcox chain grates and Murphy automatic stoker. There are also coal and ash conveyors for the whole plant. At one end of the boiler room is the coal room, and at the other the pit for the hot well, from which runs the tunnel (about three-fourths of a mile in length) to the buildings of the University, carrying heat, gas and water pipes and power, light, and other wires. Near the boiler house is the power house, 40x60 feet. The power-generating plant consists of a 70-horsepower McEwen compound engine, belted to a 60-kilowatt two-pase Westinghouse alternator, and a 200-horsepower Watertown compound, directly connected to a 125-kilowatt two-phase generator. A ten-ton traveling crane is available for handling the machinery in this room. In the basement are condensers, which get their water from a large cooling reservoir at the side of the building. Here are also the transformers that convert the current to be used in the motors scattered over the campus, from 110 volts, at which it is generated, to 400 volts, at which it is transmitted.

LABORATORIES AND EQUIPMENT

AGRICULTURAL CHEMISTRY

The laboratory will accommodate more than two hundred students and the lecture room the same number. Each desk in the laboratory contains a complete outfit of chemicals and apparatus and is supplied with gas, water, and hood for the evaporation of noxious gases and liquids. There are also a balance room, private laboratories and a students' laboratory for organic analysis; a room for water analysis, and for the polariscopic determination of sugar.

AGRONOMY

For the work in farm equipment and rural engineering the department is supplied with apparatus for studying the effect of grade, height of obstruction, height of hitch, size of wheel, and weight of load, on the draft of wagons. Correct and incorrect methods of constructing and using the doubletree are studied by means of a large, adjustable model. A wooden model demonstrates the effect of the angle of hitch upon the pulling capacity of the horse. The draft of vehicles and farm implements is studied by means of a self-registering dynamometer. The agricultural machinery room contains many of the latest models of farm machinery, including binders, mowers, plows, cultivators, and gasoline engines. Several drainage levels and an architect's level are provided for the student's use in laying out drainage systems. A plane table is used for mapping and laying out fields. A small cement laboratory provides facilities for studying the use of cement and concrete on the farm. A large glass house with its equipment of railroad tracks, trucks, and pots, affords opportunity for the study of the adaptability of crops to soils, the fertilizer requirements of different soils, and various other problems of crop production. The soil laboratory is provided with apparatus for the study of the physical properties of soils, including specific gravity, the retention of moisture, the effect of mulches on evaporation, the rate of percolation of water through soils, and the capillary rise of moisture in soils. The laboratory is also provided with a complete centrifugal outfit for the mechanical analysis of soils, and electrical instruments for determining temperature and soluble salt content. In the study of crops, use is made of the collection of dried specimens of grasses,

grains, and seeds, and the growing crops on the farm. The grass garden contains about fifty varieties of grasses and forage crops growing side by side so that a comparative study may be made as to the value of each for pasture, meadow, or hay. A corn-breeding plot gives opportunity for the study of methods of selection and breeding of seed corn.

ANATOMY AND PHYSIOLOGY

The facilities provided for the study of anatomy, histology, and physiology are excellent. The laboratory is supplied with skeletons, papier mache manikin and many models, including models of the eye, ear, larynx, etc. The apparatus of the department for work in physiology is of the best and most approved construction, and is adapted to the thorough performance of the fundamental physiological experiments. Myographs, spectroscopes, microscopes, and the necessary chemical outfit are also provided. For work in histology the equipment includes twenty-four individual tables for student experiments, each table being supplied with a good microscope, microscopical accessories, microscopical reagents; and for advanced work the needed apparatus for instruction in the various methods of hardening, staining, imbedding, section-cutting, and injection. The laboratory also has excellent microtomes, imbedding baths, and other essentials of an histological outfit. The equipment of the laboratory makes it possible to offer a large range of work for the choice of students in advanced courses.

ANIMAL HUSBANDRY

The University herd consists of about seventy-five head of cattle, twenty head of horses, and a varying number of swine and sheep. These include excellent specimens of pure bred Shorthorn, Jersey, Holstein-Friesian, and Red Poll cattle, and a variety of grade and pure bred beef steers. Clydesdale, Percheron, Hackney, and other horses of high breeding character are kept. Classes are also taken to stock farms about Columbus and in neighboring counties, where methods of feeding and handling may be studied and animals inspected. Each year a class of students who have had instructions in the breeds of live stock, and in judging, attends the International Live Stock Exposition at Chicago, visiting also the Union stock yards and packing houses. The department possesses an extensive collection of herd, flock, and stud books of the various American and European breeding associations, a large collection of lantern slides of breeds and types of animals, and of various in-

struments for measuring and studying stock, as well as specimens of feeding stuffs, wools, and other animal products. The new buildings devoted to Animal Husbandry instruction, constructed at a cost of $80,000, give unsurpassed facilities for educational work.

ARCHITECTURE

For work in Architecture two well-lighted designing rooms in Brown Hall are equipped with the needed tables, lockers, etc., and the lecture room is provided with an electric projection lantern. The department has models in plaster and wood illustrating the constructive and ornamental forms of different styles of architecture, photographs and lantern slides, drawings and specifications of erected structures, plates of architectural forms and ornaments, and samples of building material. For experimental work in heating and ventilation there are the necessary instruments, such as anemometers, hygrometers, carbonic acid testers, and thermometers. For photography there is an especially built dark room with forty-three developing compartments; also two laboratories equipped with toning and mounting tables; printing apparatus, copying cameras, lenses of long and of short focus, tele-photographic lens, color screens, shutters, and an excellent outfit for photo-micrography.

ASTRONOMY

The equipment of the Emerson McMillin Observatory consists of a twelve-inch equatorial telescope, mounting by Warner & Swasey, objective by Mr. Brashear, with a large and powerful spectroscope by Mr. Brashear, adapted to use either one or two prisms or a grating, provided with a double set of objectives, one corrected for the visual and one for the photographic rays; a position micrometer with a seven-inch circle by Warner & Swasey; a combined zenith telescope and transit instrument of three inches clear aperture by Mr. G. N. Saegmuller; a sideral clock by Clemens Riefler, of Munich; a comparator by Carl Zeiss; a four-inch portable equatorial by Alvan Clark; a chronograph by Warner & Swasey; sextants, chronometers, meteorological instruments; a zenith telescope, theodolite with twelve-inch horizontal and vertical circles, and smaller theodolites by Houghton & Simms. The equipment of the spectroscopic laboratory consists of a five-inch concave grating, with Rowland's form of mounting by Brashear, a large spectrometer, two comparators, one by Zeiss and one by Gaertner, a heliostat by Gaertner, and a 110-volt storage battery, gas engine, dynamo and large induction coil; and an excellent astronomical library.

BACTERIOLOGY

The laboratory of Bacteriolcgy occupies a portion of the new Veterinary Laboratory Building. There is a laboratory accommodating about forty-eight students, a private laboratory and office, a room for experimental animals, one for inoculated animals, and two incubator rooms. These rooms are each equipped with the necessary incubators, hot air and steam sterilizers, autoclaves, microscopes, etc., with facilities for advanced and original work.

BOTANY

The general Botanical laboratories occupy a part of the second floor of Botanical Hall. They are furnished with movable and fixed tables, water, gas, and electric lights. The compound microscopes are of Bausch and Lomb, Spencer, Leitz, and Zeiss makes. There are fifty dissecting microscopes, numerous charts, and the beginning of an equipment for plant physiology. Smaller rooms are also furnished as laboratories for physiology and morphology, as well as a dark room for photography. The general herbarium contains seed plants, ferns, mosses, algæ, and fungi. The State herbarium is very complete, and is invaluable for studies on the Ohio flora. A greenhouse connected with the building contains a fair collection of native and exotic plants and affords facilities for carrying on experimental work in physiology. The woodland and ornamental grounds of the campus, planted with a large variety of evergreen and deciduous trees and shrubs, furnish additional facilities for various lines of work.

CERAMIC ENGINEERING

This department is located in the School of Mines Building. The facilities of the department comprise a convenient chemical laboratory for analysis and decomposition of silicates, a complete mechanical outfit for the preparation of clays for pottery manufacture and the production of the ware itself, of any grade, from earthen wares to porcelain; machinery for grinding, tempering, washing, filtering, and molding; a plant for the manufacture of brick, tiles, pipes, and hollow goods, a kiln house, equipped with a down-draft kiln, using solid fuel, in which several hundred bricks, or an equivalent quantity of sewer pipe, stoneware or pottery can be burned; an up-draft kiln, using either solid or gas fuel, for burning pottery, glazed and decor ted wares, and clay tests; two Caulkin's muffle kilns arranged to fire either oil or gas, and used especially for clay testing and grazing experiments, and several

small furnaces for melting glass, burning cements, testing refractory materials by use of compressed air and natural gas; an electric furnace for high-temperature work; a ceramic museum, containing a collection of American pottery and clay products of every class; a library of the best literature on the subject, mainly German, but containing a few English and French works, and the trade periodicals.

CHEMISTRY

The laboratories of the department will accommodate about twelve hundred students. Each laboratory is equipped with all the necessary conveniences—water, gas, electric lights, distilled water, steam ovens, automatic air blasts, suction pumps, etc. The department is liberally supplied with the best apparatus and materials for both lecture room and laboratory work. Each student has his own desk with drawers and locker. All supplies are procured from the chemical store room, which has always on hand a complete stock of all necessary materials.

CIVIL ENGINEERING

For drafting, three spacious and well-lighted drawing rooms are provided in Brown Hall. In each room is a collection of working drawings, prints, maps, etc. A large blue-print room is equipped with electrical blue-print apparatus, in addition to the ordinary sunlight frames. For field work the instruments are one high-grade transit, seventeen other transits fitted for various kinds of suryeving, six leveling instruments, solar compass, two solar attachments, two high-grade aneroid barometers, two drainage levels, surveying camera, rods, chains, tapes, hand-levels, etc. Two current meters with accessories, and a rating course 175 feet long in the rear of the building furnish facilities for carrying on hydrographic work.

The cement-testing laboratory contains a Fairbanks testing machine, briquette moulds, sieves, apparatus for making hot tests, etc., and machine for testing plain and reinforced concrete beams. The department also owns a complete outfit for carrying on the work of summer surveying in camp.

DAIRYING

The dairy laboratories located in Townshend Hall permit of work along the following lines: Milk Testing, Buttermaking, Cheesemaking, Bottling of Sanitary Milk, and Dairy Mechanics. Individual milk-testing apparatus is furnished, and in the laboratory are found the necessary Babcock testers, balances, etc. The

creamery laboratory is equipped with various styles of cream separators, cream vats, and churns. The cheese laboratory, in addition to the necessary vats and other equipment, has a cold curing room and a cellar for curing brick and Swiss cheese. The sanitary milk room is a model, containing a complete "Star" outfit, which includes a steam pressure sterilizing chest. A fine refrigerator is provided for the bottled milk, and the whole is placed on a practical basis of operation, the milk from the University herd being standardized on a fat basis, bottled, and sold by students. The dairy mechanics work is provided for in a power-house with equipment of boiler, engine, mechanical refrigerating plant, pump, and pipe-fitting apparatus.

DOMESTIC SCIENCE

The department is located in Hayes Hall, and provided with four laboratories in addition to office and recitation rooms. The subjects of domestic science and domestic art are included in the work of this department.

ECONOMICS AND SOCIOLOGY

The equipment comprises a large collection of railroad, municipal and school bonds; of stocks of all kinds; of letters of credit, drafts, foreign bills of exchange, bills of lading, checks, enclosures, statements, insurance policies, trust certificates, notes, mortgages, and all the necessary forms of business paper; also collections of coins illustrative of various periods in our monetary history, foreign coins, and scrip; also sets of maps and charts and a Kiepert-Commercial Globe 80 cent. in diameter. Ample facilities for statistical work are provided and a seminary room set apart for the use of laboratory material, documents, etc., is always open to advanced students.

ELECTRICAL ENGINEERING

The dynamo equipment consists of twenty-three machines of various makes and sizes from 40-H. P. down, aggregrating over 250 horse-power. These include 110 and 500-volt direct and alternating current generators, railway and stationary motors, polyphase motors, three rotary converters specially designed for experimental work, and a unipolar dynamo. There are also a number of transformers of different makes, including one for welding, one for very high voltage, and six of special design for testing; arc lamps of different styles, a storage battery, condensers, resistances, circuit breakers and apparatus for magnetic testing, illumination testing

and photometric work. The measuring instruments include a standard Weston voltmeter with standard resistances and cells, besides over thirty-five other voltmeters and ammeters, mostly Weston's and three watt meters. There is a telephone laboratory with apparatus for comparative tests, a variety of transmitters and receivers, and material illustrative of switch-board practice. Power for running the dynamo laboratory is supplied from the University Power Plant by five induction motors and two synchronous motors or converters. There is also a well-selected and growing collection of photographs, blue prints, and material illustrative of electrical manufacture. The library is especially valuable on account of the completeness of its sets of periodicals and transactions. The University Power Plant is of great value as illustrative of a model installation.

ENGINEERING DRAWING

For Mechanical Drawing there are four large well-lighted drafting rooms with necessary tables and lockers and two lecture rooms equipped with electric projection lantern. A set of Schroeder models and a collection of shop drawings are available. There are two blue-print rooms, one provided with an Elliott electric light printing machine, the other with sun frames.

GEOLOGY

By act of the legislature the University has been put in possession of all the collections made by the State Geological Survey, and these collections have been supplemented by valuable additions of fossils and minerals from various sources. The State collection embraces a representation of every geological formation shown in Ohio. There are good opportunities for study in the paleontological, petrographical, and physiographical laboratories.

HORTICULTURE AND FORESTRY

Among the facilities provided for the illustration of the courses in horticulture, and for practical training in the same, are: A collection of horticultural tools for budding, grafting, pruning, etc.; an orchard containing well-selected varieties of the apple, pear, cherry, plum, and quince; a small vineyard, containing all the best varieties of the grape; a garden of small fruits, containing all the best varieties of the strawberry, raspberry, blackberry, currant, and gooseberry; a vegetable garden with forcing houses, cold frames, experimental plats, conveniences for irrigation, etc.; small nursery and forest tree plantations, with practice rows for budding, grafting,

pruning, and training; ornamental grounds and woodland, planted with a large variety of evergreen and deciduous trees and shrubs; a greenhouse with a fair collection of native and exotic plants; a collection of preserved natural specimens and models of fruits, seeds, woods, etc.; a laboratory fairly well equipped with balances, charts, and other appliances for study and research.

INDUSTRIAL ARTS

The shops occupy the north wing of Hayes Hall and afford excellent facilities for instruction in both the practical details and the underlying principles of carpentry, pattern-making, forging, moulding, foundry work, and machine work. The carpenter and pattern shop is equipped with twenty-five benches with complete sets of carpenter tools for each, and a large number of special tools for general use, twenty-three pattern-maker's turning lathes, with cupboards containing the necessary turning and pattern-making tools under each, an eight-foot pattern-maker's lathe with compound rest, a pony planer, a buzz planer, a circular, rip, and cross-cut saw, a scroll saw, a 36-inch band saw, a trimmer, and a power grindstone. The forge shop is equipped with twenty stationary forges with anvils and tools for each, a heating forge, a portable hand forge, a foot-power hammer, a blacksmith's drill and a punch, shear, and bar cutter. The blast for the forges is furnished through underground piping by a 45-inch Buffalo pressure blower, and the smoke is removed by a 55-inch Buffalo exhaust fan, overhead. Both of these fans are driven by a 15-horse power electric motor. The foundry is equipped with a 24-inch Colliau cupola, the blast for which is furnished by a 30-inch Buffalo blower; two brass furnaces, one 16 inches in diameter and the other 20 inches in diameter; a core oven, benches for iron and brass moulding, core-making and cleaning of castings, a space for floor moulding 30 feet by 40 feet, besides all the necessary moulding tools, flasks, crucibles, ladles, tongs, etc. The machine shop is driven by a 30-horsepower electric motor from above, and is equipped with the following tools: Twenty-eight benches for vise work, with complete set of tools; eight speed lathes, sixteen engine lathes, a Fox monitor turret lathe, two planers, two shapers, two milling machines, two upright drills, a sensitive drill, grinding machines for both plane and cylindrical surfaces, tool grinders, emery wheels, etc. This machinery is furnished with all the necessary tools, and the tool room is equipped with full sets of drills, taps, milling cutters, standard plugs, gauges, threads, micrometers, and a great variety of special tools.

MECHANICAL ENGINEERING

The technical museum contains samples of engineering supplies and materials and a collection of models of mechanism and valve gears. The laboratories are arranged to carry on experiments and investigations along the following general lines: Strength of materials in compression, tension, torsion, and cross breaking; gas, hot air, and steam engines, under varied conditions of running; hydraulics, including pumps and water-wheels; pneumatics, including air-brakes, compressors, fans, and ventilating systems; power transmission, including belts, pulleys, and lubricants; boiler testing; calibration of instruments.

Some of the principal machines for the above work are Olsen and Riehle testing machines; four gas and oil engines; Ericsson and Rider hot-air engines; two 35-horsepower and one 50-horsepower horizontal, and one 50-horsepower and one 250-horsepower vertical, simple and compound, steam engines with condensers; simple, compound, triplex, centrifugal, and rotary pumps, pulsometer, turbine and impulse wheels, tanks, weirs, meters, hydraulic engines, and rams; set of Westinghouse air-brake apparatus, air-compressors, blower and ventilating fans; lubricant, and oil testers; Robinson experiment steam boiler, with two types of furnaces, natural, forced and induced drafts, and economizer; locomotive steam boiler; horizontal, tubular, house-heating boiler; experimental chimney; calorimeters, injectors, gauges. The University power and refrigerating plants and the mechanical equipments in the different buildings upon the grounds add to the facilities for engineering tests.

METALLURGY

The metallurgical laboratories are located in the School of Mines Building. They comprise a general laboratory equipped for technical analysis and wet assaying, particularly the methods of iron and steel laboratories and other metallurgical plants; an assaying laboratory well equipped with muffle and melting furnaces for fire assaying of gold, silver, and other ores by furnace methods. Connected with this is a sampling room with power sampling apparatus for the preparation of ores, coals, and similar materials for testing and examination. Both these laboratories are well provided with analytical and assay balances and other special apparatus. There is also a well equipped calorimeter room for the determination of the heating values of fuels and for the technical analysis of flue, furnace, and mine gases in connection with mining and metallurgical

work. A small laboratory is provided for the special analysis of coal and other fuels in connection with tests of heating value, coal washing, and the preparation of artificial fuels. A small laboratory is provided for metallographical and pyrometric work, including special facilities for making microphotographs and metal sections. This laboratory is equipped with microscopes and polishing apparatus and electric furnaces for high temperature tests. The metallurgical lecture room has a projecting lantern and a large collection of views of furnaces and mining and metallurgical machinery. There is a growing collection of minerals, ores, and metallurgical products used in connection with the lectures on Metallurgy. The department is also provided with a laboratory for blow-pipe analysis and determinative mineralogy in which facilities for the identification of ores and the study of rocks are provided.

MINE ENGINEERING

This department, located in the School of Mines Building, is equipped with the latest improved instruments and apparatus used in mine engineering, surveying, and the study of mine ventilation. There is a collection of models of mine machinery and supplies, to which additions are being made, which are valuable as illustrations. The drafting room is large, well lighted and provided with a desk for each student, where he is personally taught the making of maps, the platting of actual surface and underground surveys, the making of drawings, tracings, and blue-prints. He is also taught proper methods of keeping notes and all records necessary to an efficient engineer's office. The students are given practical experience by making actual surveys of coal mines and in working up their notes complete in all of the necessary details. The students are also taught how to make working drawings, plans, estimates, and specifications of mining operations and equipment. There is a large collection of views of machines, mines, and mine equipment for use in the projection lantern in the lecture room. A photographic room with blue-printing facilities is used by the students in making copies of their own drawings and those illustrating the lectures.

PHARMACY

This department is located in the Chemistry Building. It has a large general laboratory, a smaller laboratory for advanced students, a laboratory for pharmacognosy, a dispensing room, machine room, lecture room, private laboratory and the offices of the Dean and the Secretary of the College of Pharmacy. Also, together with

the department of Chemistry, a chemical and pharmaceutical library. Each desk of the laboratories is equipped with a very complete set of apparatus for individual use and special appliances are provided for general use. The laboratory is provided with hoods, drying closets, steam pans, distilling apparatus, percolating racks, mills—everything necessary to conduct the ordinary operations of pharmacy. The dispensing room is a completely equipped and well-stocked drug store. The prescription desks permit several students to work at one time and a full complement of apparatus for the work of the dispensing counter is provided. The prescription files are complete and cover the range of prescription practice. In the library are to be found complete sets of the leading American, English, French, and German journals of pharmacy and chemistry, as well as books of reference belonging to the departments and other books from the general library for use during special investigations. The lecture room is well supplied with apparatus and appliances for illustration and experiment. About the walls are arranged cases in which are kept sets of specimens illustrating processes of manufacture, specimens of rare, costly, and curious drugs, and of official preparations. Here also is a complete set of specimens of original crude drugs, arranged by number only, for practice in the "recognition of drugs." In the machine room are the tablet machine, pill coating machines, grinding and powdering apparatus, etc.

PHYSICS

Among the recent additions to the equipment in this department are a Kohl apparatus for measuring the mutual gravitation of two metal masses, mercury vapor lamps, Junker calorimeter, Zeiss comparator and a remarkable collection of tubes illustrating phosphorescence in high vacua.

As a suggestion of the extent and variety of the equipment, the following pieces may be mentioned: Two chronometers, chronograph, Hipp chronoscope, three stop watches, dividing engine, three cathetometers, two comparators, Regnault apparatus for vapor tension, expansion of gases, and for specific heat, Melloni-Tyndall apparatus for radiant heat, four large Rowland gratings and numerous small gratings and replicas, six fine spectrometers by Geneva Society and Browning and several other makes, Michelson interferometer, half-shade polariscope, Kohlrausch total-reflectometer, Sallcron complete apparatus for projecting polarization phenomena, three arc-light projection lanterns, a large collection of Konig sound apparatus, eight Kelvin galvanometers, thirteen high grade and twenty-

eight simplex D'Arsonval galvanometers, twelve high grade and sixteen ordinary box Wheatstone bridges, sixteen high grade and twenty ordinary resistance boxes, numerous standards of resistance, capacity E. M. F. and inductance, ten or more capillary electrometers, fourteen Weston voltmeters, ammeters and wattmeters, with eight of other make, three high grade potentiometers, photometric standards and photometers, Duddell oscillograph apparatus of Hertz, Lecher, Righi, Klemencic for electrical oscillations, X-ray, and wireless telegraphy outfits.

Under the laws of Ohio, the Professor of Physics is ex-officio State Sealer of Weights and Measures and all of the standard weights, measures, and balances received from the United States government are in the Physics building.

PHYSIOLOGY

(See Anatomy and Physiology)

PSYCHOLOGY

The psychological laboratory occupies three rooms on the fourth floor of University Hall, and is reasonably well equipped for work in physiological and experimental psychology and for research in related educational lines. For the study of motor processes and development the most improved form of ergograph with complete sets of myographic, chronographic, dynamometric and pneumatic recording appliances, has been provided. A complete outfit of apparatus for the study of sensation, memory, and association makes it possible for students of education to acquire methods of exact observation of the various mental and motor processes involved in school work. Provision has been made also for work in comparative psychology.

RURAL ECONOMICS

The facilities offered for the study of Farm Management include the University farm, containing over four hundred acres, and the records that have been kept of its operations for many years. Adjoining Columbus, and within reach by electric cars, there are many well-equipped and well-managed farms, which are frequently visited by classes in this department.

VETERINARY MEDICINE

The Veterinary Hospital affords facilities for the treatment and care of animal patients, and also gives the students the opportunities

to become practically familiar with the diseases to which our domesticated animals are subject. It contains box stalls, stall for cold-water applications, a large and well-lighted operating hall, and a special ward for dogs. The front part of the Hospital contains a lecture room and a drug dispensary. In the Veterinary Laboratory building the operating room is 65x40 feet. The laboratory of pharmacology accommodates seventy-five students working at one time. The dissecting laboratory affords facilities for one hundred and twenty students working at one time. The laboratory of pathological histology is equipped with the latest pattern compound microscopes, one for each student, adequate lockers and desks. The pharmaceutical laboratory contains desk room for seventy-five students and all the necessary equipment for carrying on any of the operations coming under the head of pharmacy, including drug mills, distilling apparatus, percolators, steam evaporators, and specimens of all the common organic and inorganic drugs, etc. The amphitheatre is provided with a darkening mechanism and a modern electric projection lantern.

ZOOLOGY AND ENTOMOLOGY

At Columbus

The adjacent fields, wood, lake and river, the various well-equipped laboratories, extensive collections and libraries, furnish excellent opportunities for every phase of the study. The department occupies the first and third floors of Biological Hall, and rooms in the basement of Page Hall, providing two lecture rooms, two general and five special laboratories, museums and rooms for storage, workshops, aquaria, cold-storage, photography, etc. The laboratory equipment includes microscopes, microtomes, incubators, injectors, etc., for most approved methods of work in morphology, embryology, and neurology. The collections include a fine series of skeletons, a number of large mammals, series of the birds of Ohio, of the birds of North America, of Ohio fishes, of mollusks, and an especially rich collection of insects, particularly in Odonata, Hemiptera, and Diptera.

At the Lake Laboratory

The Lake Laboratory at Sandusky is designed to provide opportunity for investigation of the biology of the lake region, and for giving certain courses of instruction in Botany, Zoology, and Entomology. A commodious laboratory building, capable of accommo-

dating at least one hundred students and investigators, is provided, with tables, dark rooms, acquaria, water, and gas. Microscopes and other apparatus are supplied from the University. Boats, collecting apparatus, dredges, seines, etc., are supplied, and special attention is given to methods of collecting and to field work.

MUSEUMS AND LIBRARIES

MUSEUMS

ARCHAEOLOGICAL AND HISTORICAL MUSEUMS, PAGE HALL

WILLIAM C. MILLS, *Curator*

The Archæological Museum, owned jointly by the Ohio State University and the Ohio State Archæological and Historical Society, is located in Page Hall, where more than 10,000 square feet of floor space is used in displaying the largest collection of archæological specimens in Ohio. The chief exhibits, illustrating the life of prehistoric man in Ohio, are from the Baum Village Site, Gartner Mound and Village Site, Adena Mound, Harness Mound, Ft. Ancient, the lower Scioto and Muskingum Valleys, all of which are more or less familiar to the residents of Ohio through the published reports of the explorations by the Society.

During 1904 more than 10,000 specimens belonging to the Ohio State Archæological and Historical Society were placed on exhibition at the World's Fair, St. Louis, and received the grand prize. This collection has been replaced in the main exhibition room on the second floor.

The Historical Museum occupies two large exhibition rooms on the first floor, and comprises many specimens of interest to Ohio people, such as the first printing press in Franklin county, used in printing the first issues of the *Ohio State Journal;* original model of John Fitch's first steam engine; the Spanish flag that floated over Manila at the time of the surrender; the first mill-stones used in grinding corn at Fort Harmar, 1788; photographs, models, and paintings illustrating the early settlements in Ohio.

BOTANICAL MUSEUM, BOTANICAL HALL

The Botanical Museum contains the general Univeristy herbariums, and the State herbarium, over 30,000 mounted sheets, also the late Professor Kellerman's private herbarium, deposited for use in the Botanical department; a complete collection of the native woods of Ohio; a collection of the seeds and fruits of plants; a collection of native medicinal plants; a general collection of vegetable products, including seeds, textile fabrics, coloring substances, etc., illustrating economic botany.

CERAMIC MUSEUM, SCHOOL OF MINES BUILDING

The Museum of Ceramics shows specimens of ceramic products in great number, which have been donated by clay product manufacturers with some exhibits of the experimental work done in pursuit of the class work in the ceramic laboratory.

GEOLOGICAL MUSEUM, ORTON HALL

PROFESSOR J. A. BOWNOCKER, *Curator*

The Geological Museum of the University includes the following named series: (a) An excellent representation of the leading divisions of the geological scale of the State, so far as it can be illustrated by rock specimens. The specimens represent the leading phases of formation, and in many cases carry the characteristic fossils of the horizons from which they are derived. (b) A collection of the animal and vegetable fossils of the rocks of Ohio. This series includes a large majority of the described fossils of our formation, and in the number are many type specimens. While all the ages of our geological history are well represented, the collection of the Upper Silurian and Devonian animal fossils is particularly rich and complete. A remarkably fine series of coal plants is also included in the museum. The list of fossils has been greatly extended in the number

of Devonian species and individuals by the recent purchase of the collection of Mr. Henry Moores, of Columbus. (c) The economic minerals of the state are also shown to excellent advantage in the museum. The coals, petroleums, iron ores, clay and building stones produced in Ohio are represented in large collections. Many of the specimens upon which chemical examinations or physical tests have been based in the work of the geological survey of the state are included here. (d) Petrographical collections: These collections were selected with a view to their use in petrographical instruction, and embrace the Hawes collection, the Rohn collection, the Krantz collection and the Rosenbusch complete series of typical rock specimens from important centers abroad. These hand specimens are supplemented by two series of thin sections, including Voight and Hochgesang's collections of typical rocks and of the petrographically important minerals. (e) In addition to the collections above described the museum contains a great deal of valuable material in the line of general geology and mineralogy. Among other things it includes several valuable suits of ores and many fine mineral specimens. (f) There also belong to the museum a number of geological casts, models, and maps. In this series are included a relief map of the State of Ohio, Vesuvius, Leadville, Niagara Falls, and also the models of the basins of the Atlantic Ocean and Caribbean Sea, prepared under the supervision of the United States Coast and Geodetic Survey. (g) The catalogue of the museum contains more than 11,000 entries; but as only one number is as a rule given to a fossil or a mineral species, the individual specimens make an aggregate list of many thousands in addition to the catalogue list, and probably double this list. (h) The skeleton of a mastodon, one of the extinct elephants of Ohio, has been presented to the museum by N. S. Conway, of Catawba, O., on whose farm it was found. It has been mounted by Professor H.

A. Ward, of Rochester, N. Y., and is one of the largest in the country. (i) The museum also has a mounted skeleton of Megalonyx Jeffersonii, one of the great ground sloths. This specimen has the distinction of being the first and thus far the only mounted skeleton of this animal in the world. The bones were discovered by Abraham Drushell and others in a swamp in Berlin Township, in Holmes county, Ohio, in 1890. They were mounted in Ward's Natural Science Establishment, Rochester, N. Y. The entire outlay involved in the purchase of the bones and in mounting them was borne by Mr. Emerson McMillin, of New York.

VETERINARY MUSEUM, VETERINARY LABORATORY

In the Veterinary Museum are skeletons of horse and ox, models of the various anatomical parts, and many pathological specimens preserved in alcohol.

ZOOLOGICAL MUSEUM, BIOLOGICAL HALL

The foundations for a zoological museum have been laid and the work begun on a generous plan. Every effort is being made to secure and preserve excellent specimens in all groups of animals. Not only the adult animals are preserved, but the preparatory stages as well, their work and architecture, in fact all that can illustrate the life-history and habits. Among special features are the Wheaton collection of birds of Ohio, numbering about 1,000 skins; a collection of North American birds, about 1,500 skins, representing very fully the North American fauna; the Hayden collection of birds and nests, a number of fine specimens of larger animals, moose, hippopotamus, deer, tiger, peccary, lion, tapir, etc.; a collection of about 3,500 molluscan shells; a fine series of Ohio fishes; numerous reptiles, amphibians, etc. There is an excellent series of skeletons, crania, and alcoholic material for courses in comparative anatomy. The collection of insects is being rapidly

enlarged and the purchase of the Kellicott collection of Odonata makes it especially rich in that order. Professor Osborn's private collection of Hemiptera is deposited in the department and available to students for comparison and study.

LIBRARIES

THE UNIVERSITY LIBRARY

The University Library consists of the General Library, the Law Library, and a number of Department Libraries. The total number of bound volumes is 82,000.

The General Library, temporarily located in Orton Hall, contains the main body of the books in all classes of literature. A special feature is the unusually large collection of government documents. The Law Library, in Page Hall, contains 5,700 volumes consisting of the greater number of State Reports, some English Reports, and a good collection of text-books. It is especially well equipped for the study of Ohio Law. The Department Libraries are in the rooms of the various departments. The departments having the largest Libraries are Economics, Civil Engineering, Animal Husbandry, and Zoology. The Animal Husbandry Library contains a collection of herd books which is probably one of the most complete in the country. In the Economics Library is to be found the private library of the late Professor Clark. In addition it receives over thirty financial and commercial trade journals. The Zoology and Entomology Library has as its nucleus the scientific library of the late Professor Kellicott; and the Civil Engineering Library contains the library of the late Professor Brown.

During term time the General Library and the Law Library are open six days in the week, legal holidays being excepted. From Monday until Friday the hours are from 7:30 a. m. to 9:30 p. m. in the General Library, and from 7:30 a. m. to 6 p. m. and from 7 to 9:30 p. m in the Law Library The Saturday hours for both Libraries are from

7:30 a. m. to 4 p. m., and both Libraries are closed during the Convocation hour on Wednesdays. The Department Libraries are open for the use of students at such times as the professors decide.

ARCHAEOLOGICAL AND HISTORICAL SOCIETY'S LIBRARY

The library of the society is situated on the second floor of Page Hall, and is composed chiefly of complete sets of the publications of historical societies of the United States, scientific societies, publications of museums, academies, colleges, universities and libraries, and many rare and valuable books upon the American Indian and the early history of Ohio.

This library is free to all students of the University, as a reference library, from 9 a. m. to 4. p. m.

STATE LIBRARIES

The Ohio State Library numbers about 127,000 volumes and occupies a room in the State House.

The State Law Library of over 30,000 volumes, contains complete sets of the English, Scotch, Irish, Canadian, United States, and State reports, statutes and digests. The important legal periodicals are on file.

CITY LIBRARIES

The City Library numbers 57,000 volumes. The Public School Library numbers 72,000 volumes.

GENERAL INFORMATION

CHRISTIAN ASSOCIATIONS

The Young Men's Christian Association has come to occupy a prominent place in university life. It has a membership of about four hundred men, and is affiliated with the World's Student Christian Federation. The Association House furnishes free for the use of its members, a reading room, a library, magazines and papers, piano, and telephone—a college home.

Religious meetings are held for men on Sunday afternoon; there are also frequent meetings for the promotion of social intercourse and good fellowship. Courses in systematic Bible study and in modern missions are offered. A most helpful feature of the work is that in the interest of new students at the opening of the school year. Desirable rooms and boarding places are found and posted for reference at the Association House. Representatives of the Association meet the trains, assist students in finding satisfactory locations, and endeavor in every way to make them feel at home. The Employment Bureau helps to find work.

A copy of the Students' Handbook, giving information about Columbus, the University, and the various college organizations and activities, will be sent free to prospective students. For this handbook or for further information, address the General Secretary of O. S. U. Y. M. C. A., 239 West Tenth Avenue, Columbus, Ohio.

The Young Women's Christian Association holds religious meetings regularly at noon on Tuesdays. This organization is active and efficient in working for the highest interests of the young women. Young women planning to enter the University are invited to correspond with refer-

ence to board or rooms with the General Secretary, O. S. U. Y. W. C. A., University Hall, Columbus, Ohio.

THE UNIVERSITY CONVOCATION

An entire hour, from ten to eleven on Wednesday of each week, is devoted to a convocation of students and faculty, at which the President presides. In addition to devotional exercises an address is delivered upon some suitable topic. During this hour the libraries and laboratories are closed and no other university exercises occur. The public is always welcome at the Convocation.

LITERARY, SCIENTIFIC, AND OTHER SOCIETIES

The University has about seventy literary, debating, scientific, technical, political, philanthropic, philosophic, art, musical, and language clubs, or societies, as well as athletic and Greek letter organizations. Most of these clubs and societies include in their membership both students and members of the faculty. Some of the more prominent are the Phi Beta Kappa Society, the Society of Sigma Psi, the Alcyone Literary Society, the Athenæum Literary Society, the Browning Literary Society, the Philomathean Literary Society, the Townshend Literary Society, the William F. Hunter Law Society, the English Club, Der Deutsche-Verein, the Cercle Dramatique, the Cosmopolitan Club, the Political Science Club, the Philosophical Society, the Biological Club, the Chemical Association, the Organic Evolution Club, the Ornithological Club, the Pharmaceutical Society, the Engineering Society, the Electrical Engineers' Club, the Mechanical Engineers' Society, the Ceramics Society, the Horticultural Society, the Men's Glee Club, the Girls' Glee Club, the Strollers (dramatic), the Mandolin and Guitar Club, the Male Quartette, the Cadet Band, the Sketch Club, the McKinley Club, the Thurman Club, the Prohibition Club, the Students Employment Bureau.

MILITARY SCIENCE AND TACTICS

Under the law of Congress establishing the University, it is required that instruction shall be given in military science and tactics. In accordance with this provision an officer of the regular army has been detailed to take charge of the department of Military Science and Tactics; and the Trustees have directed that all male students, except those in the College of Law and such others as many be especially excused, shall render two years of cadet service. A uniform has been prescribed with which each member is required to provide himself; and fifty minutes a day are devoted to drill, except on those days when instruction in tactics and art of war is given.

The course of instruction is both practical and theoretical. It is given by means of systematic drill, supplemented by lectures and recitations, and is so arranged as to occupy three hours per week throughout the year. For purposes of drill, all students enrolled in the department are organized into a regiment, the officers of which are selected from those students who have shown special proficiency in their university work and the work of the department. Commissioned officers and non-commissioned officers receive certificates of satisfactory service, issued by the University. A cadet band has been organized in connection with this department. A thorough course in gallery shooting has been established, the arms and ammunition being the same as adopted by the State of Ohio for use of the National Guard. The theoretical instruction includes a systematic and progressive course in drill regulations of the United States Army, the organization and administration of the United States Army, and the elementary principles governing in the art of war.

Competitive drills are held yearly for two medals; one the first prize, of gold, presented to the University by the M. C. Lilley Company, the other, the second prize, of silver,

presented by Lieut. Wilson, when commandant. These medals remain the property of the University, the winner wearing them until the next competition. The "President's Prize" consists of an officer's sword, given to the captain of the company having the best record for attendance for the year. The Class of 1886 presented a sword to be competed for by all companies—sword to remain the property of the University—and worn for one year by the captain whose company is adjudged best; bronze medals struck from a die presented to the University by Professor Edward Orton, Jr., in 1906, are presented to each member of the company winning this sword.

The equipment of the department consists of 750 United State magazine rifles and sets of infantry equipment, thirty-four officers' swords and belts, and a few instruments for the band. The United States Ordinance Department furnishes an annual allowance of one thousand rounds of ball and one thousand rounds of blank cartridges for cadet rifles.

PHYSICAL EDUCATION

Physical Education is conducted under the direct supervision of the Director, who is a graduate physician and a member of the University Faculty. He is assisted by an associate director for women, also an assistant and twenty student aids, who are selected each year from the upper classmen and those who show proficiency in their work. The main floor of the gymnasium (80 by 150 ft.) is thoroughly equipped with the most modern gymnastic apparatus. It is used by the women in the forenoon while the men exercise in the new gymnasium on the first floor. In the afternoon the main floor is used exclusively by the men for class work, athletics, basket ball, recreative games, etc. Regular class exercise two hours per week is required during the first year of a student's residence at the University or until he has successfully completed three terms of this

work. A thorough physical examination is made of each student at the opening of the college year. Physical defects, abnormalities and weaknesses are noted and judicious, healthful exercise is prescribed to fit the student's individual needs.

THESIS

As a requisite for graduation, each candidate in the Colleges of Engineering and Pharmacy, must present an acceptable thesis, embodying the results of a special study. The subject of this study must lie within the field of the degree sought. The subject must be filed with the President of the University (dependent upon the approval of the head of the department), on the official blank provided for the purpose, not later than December 15 of the Univeristy year in which the degree is sought. The completed thesis must be submitted to the head of the department concerned not later than the second Saturday before Commencement Day.

The accepted thesis, on standard paper, Buckeye Bond, 8½x11 inches, medium weight, typewritten or printed, neatly bound in black cloth, gilt lettered on first cover with the thesis title, name of author, degree sought, and year of graduation, must be filed not later than the Friday preceding Commencement Day.

OHIO FORESTRY BUREAU

This Bureau has been established and located at the University by the Legislature for the purpose of inquiring into the best means of preserving and utilizing the forests of the state.

FELLOWSHIPS

UNIVERSITY FELLOWSHIPS

To encourage graduates of this University, and of other similar and approved institutions in this state, to continue their studies and to undertake advanced work leading to

the higher degrees, the University has established fellowships in several departments. These demand about one-half of the time of the fellow for laboratory or other similar assistance—as far as possible along the line of his graduate study. The remainder of his time is given to graduate work. The fellowships pay from $150 to $300 for the University year. A list of students holding fellowships during the present academic year is given on page 43.

THE ROBINSON FELLOWSHIP IN ENGINEERING

This fellowship was endowed by Emeritus Professor Stillman W. Robinson for the encouragement of graduate research work in engineering, provides three hundred dollars annually, and is open to graduates in Mechanical, Civil, and Electrical Engineering. Any student to whom this fellowship is awarded must devote his entire time to the work, which shall amount to at least sixteen hours per week, of which at least eight shall be in the line of original reserch or investigation. This fellowship will be awarded on the Friday preceding Commencement Day. All applications must be filed with the committee on or before the first of June of the same year, and must include a general outline of the course of study and research proposed. This must show a definite object to be attained. The application may be for one or two years, preference being given to candidates electing the two-year course.

PRIZES

Through the generosity of Hon. William J. Bryan an annual prize of fifteen dollars is offered for the best essay on the principles underlying the form of government of the United States. Competition for this prize is open to all students of the University. For further information, make inquiry of the head of the department of American History and Political Science.

The Edward Thompson Company offers annually to the

student writing the best essay on a legal theme selected by the faculty of the College of Law, the second edition of the American and English Encyclopedia of Law, complete in thirty-two volumes.

THE STATE UNIVERSITIES' DEBATING LEAGUE

In 1905 by agreement between representatives of the University of Illinois, Indiana University, and Ohio State University, the State Universities' Debating League was organized. Under the agreement a public debate is held each year between students of each two of the universities. The debaters to represent Ohio State University are chosen each year by competitive tests, and any student of the University is eligible to compete.

HIGH SCHOOL COMMITTEE

In order to serve the schools of the state the Faculty has provided a committee, one of the duties of which is to assist graduates of the University to teaching positions for which they are best fitted. Any student of the University intending to teach is invited to enroll his name with the committee on a blank provided for that purpose. Blanks may be obtained from the Executive Office. Graduates of the University who are already engaged in teaching are also cordially invited to correspond with the appointment committee with a view to bettering their positions. Correspondence is invited from boards of education and from superintendents and principals of schools in need of teachers. No fee is charged for the services of the committee.

FEES AND EXPENSES

GENERAL CHARGES

All term dues must be paid at the opening of each term as a condition of admission to classes. Registration is not complete until the fees have been paid.

**Incidental Fee*—A charge of six dollars a term, eighteen dollars a year, is made against all students, under the head of incidental expense. In the case of former students if this fee is not paid until the second day of the term one dollar will be added, and for each succeeding day of delinquency fifty cents will be added.

†*Tuition*—Tuition is free for all students except in the College of Law. The fees of the College of Law are $30 per semester, including the incidental fee.

RETURN OF FEES

The rules of the Trustees provide for the return of fees only in cases of prolonged illness or of unforseen calamity.

LABORATORY FEES

Students in all laboratory courses (*i. e., all* courses not exclusively lectures and recitations), are required to pay a flat fee of one dollar per term for each laboratory course taken. The sums thus derived are to cover in part the loss and deterioration of the expensive instruments used by them. In addition, each department assesses upon the students of each laboratory course the cost of the supplies and materials consumed by them. These fees vary considerably in different departments, and they are collected in the form of cash advances when the student enters, the unexpended balance being returned to him at the end of the term.

In those departments in which the laboratory work is chemical, the student buys a card for five dollars at the

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*Beginning with the year 1910-1911 the incidental fee for residents of Ohio will be $10.00 a semester or $20.00 a year; for non-residents of Ohio $15.00 a semester or $30.00 a year.

†Beginning with the year 9110-1911 the fees of the College of Law will be $30.00 a semester, or $60.00 a year for residents of Ohio; and $35.00 a semester or $70.00 a year for non-residents of Ohio.

beginning of the course, and from that card is supplied with chemicals and apparatus as he needs them, the value of each purchase being punched out of the card at the time. When the card is exhausted, another must be purchased. All first year students in elementary chemistry (Chem. 3, 7, 12) will be required to buy a $10.00 card. This will cover the expense for the year with reasonable care in the use of supplies. The store room redeems all unusued cards at face value.

LOCKER FEE

A fee of one dollar a term is required from those who make use of a locker in the gymnasium.

CADET UNIFORM

The uniform with which the members of the regiment are required to provide themselves costs (without overcoat) about fourteen dollars. It is designed to be worn in place of civilian dress.

FEES OF GRADUATE STUDENTS, FELLOWS, AND ASSISTANTS

Graduate students with the exception of Fellows are subject to the same requirements in the way of fees as undergraduates. Fellows are not required to pay the incidental fee or the fixed laboratory fees. Assistants, whether graduate or undergraduate students, are required to pay both the incidental and the fixed laboratory fees.

GRADUATION FEE

A fee of five dollars, to cover expense of graduation and diploma, is required of each person receiving one of the ordinary degrees from the University, and this fee must be paid before the degree is conferred. A like fee of ten dollars is charged to each person receiving one of the higher graduate degrees.

FEES FOR THE COLLEGE OF LAW*

Incidental Fee—An incidental fee of fifteen dollars per year is charged to regular undergraduate students.

*See note on page 96.

Tuition Fee—In addition to the incidental fee named above, a tuition fee of twenty-two dollars and fifty cents per semester is charged to regular undergraduate students. Students of other colleges of the University who elect courses in law are charged a fee of seven dollars and fifty cents for a course of five hours each semester; for a course of more than five hours, the regular tuition fee of twenty-two dollars and fifty cents each semester is charged.

Diploma Fee—A fee of five dollars is charged to all who receive the diploma or certificate. This fee must be paid before the degree is conferred or certificate delivered.

AUDITOR'S FEE

On presentation to the Bursar of the written consent of the head of a department, and on payment to the Bursar of an auditor's fee of one dollar, any person engaged in teaching is permitted to attend, in that department, any class or course (not to exceed three hours a week for one-half year) which is announced to be especially for teachers or those intending to teach.

ROOMS AND BOARD

Board and room for from fifty-five to sixty young women and board for about thirty others can be obtained at Oxley Hall. Application should be made in advance to the House Superintendent, Miss Dora Eaton, Oxley Hall, Columbus, Ohio.

Boarding clubs are also formed in the neighborhood of the University. Furnished rooms are rented at one dollar to a dollar and a half a week for each student, and the cost of table board is two dollars and seventy-five cents to three dollars and a half a week.

Board with furnished rooms can be obtained in private families within convenient distances from the University at rates varying from three and a half to five dollars per week. The ruling rate may be taken as four dollars.

FREE SCHOLARSHIPS

A free scholarship, good for two years in the College of Agriculture and Domestic Science, is granted to one student annually from each county in Ohio, but not more than two scholarships can be in force at any one time from any county. If in any county there is no applicant for the free scholarship in the College of Agriculture and Domestic Science, then a free scholarship, good for two years, in the College of Veterinary Medicine may be granted.

Each scholarship is valid for two years from its grant, and covers incidental and fixed laboratory fees. In the chemical laboratories a student holding a free scholarship shall be required to pay for materials used and to make a deposit to cover breakage the same as other students. In case of other than new students the scholarship will be accepted only after approval by the Board of Trustees. All scholarships must be presented to the Secretary of the Board of Trustees on or before November 1st of the year in which they are to be used, otherwise they are not valid.

The free scholarship cannot be used in the special winter term courses. The appointments are made by the County Boards of Agriculture, and are not transferable by the appointees. To learn whether the scholarship of a given county for the current year has been granted, inquiry should be addressed to the Secretary or President of the County Agricultural Society. For further information concerning these scholarships, inquiries should be addressed to the Dean of the College of Agriculture.

STUDENT AID

Through the munificence of Hon. R. P. Scott, of Cadiz, and the late J. McLain Smith, a certain sum is available each year for the assistance of worthy students. Students who have proved their ability to maintain a high order of scholarship and who are of high character and worth are

given the preference in the awards. During the present year nineteen students are receiving this aid.

SELF SUPPORT

There is a large amount of work upon the University farm which is assigned to students, preference being given to those who are studying Agriculture. *But the University cannot promise work to all applicants.* Many students find work in private families, in offices, and in various occupations, by means of which they defray a portion of their expenses. A person of ability and energy, who is master of a trade, or who can do good work of any kind, can generally find employment, but prospective students are cautioned against depending wholly upon such uncertain sources of income.

Students should distinctly understand that where they attempt entire or partial self-support they should lenghten the term of study. An employment bureau is maintained at the University where the names of those seeking work and of those desiring workers are recorded. Students should report to the Executive Office from time to time as to their needs and their work. This will enable the authorities to be more helpful than otherwise would be possible.

As an accommodation the executive office coöperates as far as possible in this matter. The Y. M. C. A. offers its services in helping young men to secure employment. Very much depends, however, on the individual's power of initiative. Students should not come to the University expecting others to find places for them.

RULES AND REGULATIONS

REGISTRATION

All students are required to register and pay their term fees on or before the first day of each term, between the hours of 8 a. m. and 12 m., or between 1 and 4 p. m., central standard time. Registration is not complete until the fee is paid.

All students (except those entering for the first time) who fail to register as above will be charged one dollar in addition to the usual incidental fee, for the first day of deliquency, and fifty cents additional for each subseqeuent day.

No candidate for graduation in a course requiring a thesis, will be permitted to register for the second term of his graduating year, except upon presentation to the bursar, of the President's certificate that his thesis subject has been announced and approved.

ASSIGNMENT OF WORK

The assignment of work shall be made and recorded for each student, as shall be determined by the several facilities; but at the beginning of each term or semister, each student's card shall be signed by the Secretary of his College before presentation to the bursar.

AMOUNT OF WORK

No student is permitted to take less than fifteen credit hours a week of any sort of work, except by special permission, and no student will be permitted to take more than the regular work of the class to which he belongs, who has not passed all his work for the preceding term.

CREDIT HOUR

A credit hour means one hour class room work in lecture, recitation, or quiz, or two consecutive hours of practical or experimental work in any department shall be regarded as the equivalent of one hour of class room exercise; but when no outside work is required in addition to the laboratory work, then three hours of laboratory work may be required as equivalent to one credit hour; and in general not more than three hours of the student's time, including class hours, shall be required for each credit hour.

ELECTIVE STUDIES

All elections of work in continuous studies, when once made, are understood to be made for the entire collegiate year.

The right is reserved to each instructor to withdraw the offer of any elective study when it is not chosen by at least four persons.

REMOVAL OF ENTRANCE CONDITIONS

Students shall be regarded as strictly on trial until they have removed all deficiencies and conditions in entrance requirements.

Students who have any entrance conditions outstanding at the beginning of the third year of residence at the University will not be allowed to register until such conditions have been removed.

The removal of entrance conditions is administered by the Entrance Board. Conditions may be removed (1) by examination—for schedule, see pages 105-106; or (2) by the substitution of excess work in other approved subjects; or (3) by the substitution of other equivalent work to be done at the University at such times and in such subjects as the Entrance Board shall direct.

EXAMINATIONS AND STANDING

The standing of undergraduate students in each study shall be reported at the end of each term or semester, as "merit," "passed," "conditioned," or "failed." A final written examination shall be held for all undergraduate students in all courses, except purely laboratory and seminary courses in which a final examination shall be optional with the head of the department.

The standings "merit," and "passed," indicate that the student has full credit for the term's or semester's work in the study in which this standing is obtained.

The report "credit" (K) shall be used only for work not done in regular class at the University.

The standing "conditioned" indicates that credit for the term's or semester's work in the study in which the condition was incurred is withheld. The student shall be given an opportunity to obtain credit by a special re-examination; or if the study be a continuous one, the instructor in charge may, at his discretion, excuse the student from re-examination and may allow him to obtain credit by pursuing the study successfully during the following term or semester. If the student thus excused from re-examination does not pass upon the work of the second term or semester, he shall be reported as "failed" in the work of both terms or semesters. Any condition that is not removed within one year from the beginning of the term or semester in which it was incurred shall lapse into a "failure."

The standing "failed" indicates that the student has obtained no credit whatever for the term's or semester's work in which the

mark is given. The student must, at the first opportunity, repeat in class the study in which he has failed. But a student who has failed in an elective study may be excused from repeating such study by the Executive Committee of his college. In case of failure in any continuous study the work of the term or semester in which the failure is incurred must be repeated in class before any subsequent term's or semester's work in that study can be commenced. Unexcused absence from any regular examination is construed as a failure therein.

Any student who fails at the end of any term or semester to secure full credit for two-thirds of his work, shall be put on probation for the succeeding two terms or one semester of his residence at the University with restricted work (to be determined by the faculty in each college); and if during this time of probation, he shall incur failures amounting in any one term or semester to more than one-third of his work, or conditions and failures amounting to one-half of his work, or conditions alone amounting to two-thirds of his work, he shall thereby cease to be a member of the University and shall be so notified by the dean of the college in which he is registered and a notice shall be sent to the parent or guardian of the student.

If for any cause the preparation, progress, or success of any student in the work assigned him be found unsatisfactory, the President may remove him from a class or dismiss him from the University.

TERMS AND VACATION

The first term of the University year begins on the Tuesday following the 16th day of September and closes on the Wednesday following the 17th day of June. The first term closes on the Wednesday preceding Christmas; the second term begins on the Tuesday following the 1st day of January and closes on the Friday preceding the first Monday in April; the third term begins on the Wednesday following the close of the second term. But when Christmas falls on Tuesday or Wednesday, the second term shall begin on January 2. The second semester begins on Monday of the eighteenth week preceding commencement week; and the first semester closes on the Friday preceding the opening of the second semester. College work begins in accordance with the program on the second day of each term or semester. The regular college exercises are suspended from 4 o'clock p. m. of the Wednesday preceding Christmas until 8 o'clock a. m. of the Tuesday following the first day of January; on Thanksgiving and the day following; on University day, which

is the 22d day of February; from 4 o'clock p. m. of the Friday preceding the first Monday in April until 8 o'clock a. m. of the Wednesday following the first Monday in April; and on Memorial Day. But when Christmas falls on Tuesday or Wednesday, exercises are suspended from 4 o'clock p. m. of the Wednesday preceding Christmas until 8 o'clock a. m. of January 2.

STUDENT'S LOCAL ADDRESS

Each student shall at the beginning of the year give, in writing, his or her local address to the Registrar, and shall promptly report all subsequent changes of address.

SMOKING PROHIBITED

Smoking is prohibited in the halls, basements, and lecture rooms of the University buildings.

ROOM REGULATIONS

The rooms of University student organizations which are located in the University buildings shall not be used for the purposes other than the usual exercises of such organizations without the previously obtained consent of the University Faculty.

No arrangements or announcements shall be made by students for any public gathering or exercises in the University buildings without the previously obtained consent of the President.

EXCUSES FOR ABSENCE

All absences of individual students from the city, for any purpose, involving absence from college exercises, must be accounted for to the President; and in all possible cases permission must be previously obtained.

Excuses will not be granted for absences of more than two weeks standing, unless the absence has been continuous.

ADMISSION*

GENERAL REQUIREMENTS FOR ADMISSION

Applicants for admission to the colleges of Agriculture and Domestic Science, Arts, Philosophy, and Science, Education, or Pharmacy, must be at least sixteen years of age; for admission to the college of Engineering or Veterinary Medicine, at least seventeen years of age; for admission to the College of Law, at least eighteen years of age. The University is open on equal terms to both sexes.

UNIVERSITY ENTRANCE BOARD

The admission of students is in charge of the University Entrance Board, which determines the credits which shall be issued on all entrance examinations and certificates, and furnishes all desired information to applicants. Correspondence relating to admission should be addressed to the Entrance Board, Ohio State University, Columbus.

ADMISSION TO COURSES LEADING TO DEGREES

There are two modes of admission to the courses of the University leading to degrees: (a) by examination, (b) by certificate.

ADMISSION BY EXAMINATION

The Entrance Board will conduct entrance examinations June 15 to 19, and September 14 to 18, 1909, and June 14 to 18, 1910. A part of the examinations may be taken in June and the remainder in September. All applicants for admission who are not graduates of an accredited or recognized secondary school or approved preparatory school, or who do not possess certificates from the State Board of School Examiners, must take examinations for admission.

*A special bulletin entitled "Entrance Information" may be obtained by addressing the University Editor.

SCHEDULE—Examinations will be from 8 to 12 a. m., from 1 to 5 p. m.

Tuesday	a. m.	History: Greek and Roman, English, General.
"	p. m.	Composition and Rhetoric, Classics, Chemistry.
Wednesday	a. m.	Algebra, German, Descriptive Geography.
"	p. m.	Plane Geometry, Physical Geography, Spanish.
Thursday	a. m.	Civics, Solid Geometry, Zoology.
"	p. m.	Beginning Latin, Cæsar, Elements of Agriculture, Trigonometry.
Friday	a. m.	Physics, Physiology, Botany.
"	p. m.	U. S. History, French, English Literature.
Saturday	a. m.	Vergil, Cicero, Domestic Science.

ADMISSION BY CERTIFICATE

Applicants may be admitted without examination on presentation of properly endorsed certificates from such secondary schools as have been accredited* or recognized by the University, or from approved normal schools, or from the State Board of School Examiners under the following provisions:

(a) If from secondary schools, the certificate must show that the applicant is a graduate in good standing of the school issuing it; and also must state in detail the studies pursued, the text-books used, the amount of work done in each study, the amount of time devoted to it, and the fact that the applicant has passed in the work.

(b) Any entrance requirement not covered by a certificate must be met by examination.

Blank certificates may be obtained by addressing the Secretary of the Entrance Board. Certificates should be filled out and returned to the University as early as possible after the close of schools in June. Since errors are frequently made in transcribing the school record on the blank form, the applicant should verify his certificate before presenting it to the Entrance Board.

*Regarding accredited and recognized schools see page 128 and following.

For admission to agricultural courses only, certificates from first and second grade schools will be accepted. Certificates of applicants for admission to the College of Veterinary Medicine need not show high school graduation.

The College Entrance Examination Board's certificates are accepted. This board holds examinations at various places throughout the country in June. For information address College Entrance Examination Board, Postoffice Sub-station 84, New York, N. Y.

COLLEGE REQUIREMENTS BY UNITS

All colleges of the University, except the College of Law*, require for admission to the degree courses the following eight basic units:

English	2 units
History	1 unit
Mathematics	2 units
Language (other than English)	2 units
Science	1 unit
English	3 units

The College of Agriculture and Domestic Science requires four units (and in the course of Domestic Science seven units) from the list below, including physics, in addition to the eight basic units named above.

The College of Arts, Philosophy, and Science, and the College of Education require in addition to the eight basic units, seven units from the list below, one of which must be English and two language other than English; physics or chemistry being designated as the science unit.

The College of Engineering requires, in addition to the eight basic units, seven units from the list below which must include one of English, and one of mathematics, including solid geometry; physics being designated as the science.

The College of Pharmacy requires in addition to the eight basic units, three units from the list below. For ad-

*Regarding the requirements for admission to the College of Law, see under description of the College of Law (p. 217).

mission to the certificate course see under the description of the College of Pharmacy.

The College of Veterinary Medicine requires the eight basic units named above, with the exception that a substitution of an additional unit in science for one of the units in mathematics is permitted.

TABLE OF RECOGNIZED UNITS

English	3 units
(Foreign students may substitute their native language for the English requirement)	
American History or American History and Civil Government	1 unit
Ancient History (Greek and Roman) and Mediæval History to 814 A. D.	1 unit
Mediæval and Modern History (from 814 A. D. to the present)	1 unit
(For the present General History may be counted as a unit but not in addition to Ancient or Mediæval and Modern History)	
English History	1 unit
Algebra (through quadratics)	1 unit
Algebra (beyond quadratics)	½ unit
Geometry (plane)	1 unit
Geometry (solid)	½ unit
Trigonometry	½ unit
Latin	2, 3, or 4 units
Greek	2, 3, or 4 units
German	2, 3, or 4 units
French	2, 3, or 4 units
Spanish	2, 3, or 4 units
(Not less than two units of any language will be accepted)	
Physics	1 unit
Chemistry	1 unit
Physical Geography	1 unit
Botany	1 unit
Zoology	1 unit

Physical Geography Zoology Botany Physiology	For the present any two of these may be counted together as..... 1 unit
Agriculture Freehand Drawing Manual Training Domestic Science	The Entrance Board may, after investigating each claim, grant a total credit of not to exceed 2 units

Preparation in excess of the requirement in any subject will not be credited unless it amounts to one-half unit. The extent and character of the work required in each subject mentioned above is indicated on page 112 et seq.

No student under twenty-one years of age will be admitted to college if he is conditioned in more than two required units, except in the College of Pharmacy which permits a student to enter with three units conditioned. In the College of Engineering one-half unit only may be conditioned in mathematics. All entrance conditions must be removed within two years after admission.

Students over twenty-one years of age are admitted in accordance with the rule printed on page 110.

ADMISSION WITH ADVANCED STANDING

Applicants for admission with advanced standing who do not come from an approved college, will be examined in the studies preparatory to admission to the appropriate college, and in the studies for which they seek advanced credits.

Applicants who have completed at least one year's work in an approved college, and who bring official and explicit certificates describing their courses of study and scholarship, and letters of honorable dismissal, will be admitted to any of the colleges of the University in accordance with either of two plans:

1. The entrance units on which the candidate was admitted to the approved college will be accepted at their

face value; deficiencies will be made up from the college credits presented, and advanced credit will be given for any remaining satisfactory work; or

2. One year's work will be accepted in lieu of entrance units and the candidate will be admitted without examination and without conditions, but without any advanced standing on the year's work.

ADMISSION TO COURSES NOT LEADING TO DEGREES

In the colleges of Agriculture and Domestic Science, Education, Engineering, and Pharmacy, courses covering two years or less are offered. In the college of Law a three-year course leading to a certificate is offered. For definite statements regarding the requirements for admission to any of these courses, consult the detailed description of the several colleges.

ADMISSION TO SPECIAL STUDIES

Students who desires to pursue special lines of work in the University, and do not intend to become candidates for degrees, will be admitted on the following conditions:

1. The regular entrance requirements must be satisfied.

But applicants who are not less than twenty-one years of age, after obtaining credit for elementary or "grade" work, and for such other subjects as may be necessary to qualify them for the classes that they wish to enter, may, on the presentation of satisfactory reasons, be admitted by the joint action of the Entrance Board and the Executive Committee of the College, to any class in the College; provided, that if any student who has been admitted on these conditions afterwards becomes a candidate for a degree, he shall take the omitted entrance examinations at least one academic year before the degree is conferred.

2. Before entering the college, students desiring to pursue special work are required to lay before the faculty, for approval or modification, a written statement of the end they have in view, the studies proposed for the attainment of that end, and the probable periods of attendance. Such students will be held as strictly to

their accepted schemes of work as are the regular undergraduates to their courses of study.

3. Permission to enter as special undergraduates will be refused to all who fail to give satisfactory evidence of definiteness of purpose and will be withdrawn whenever the conditions on which it was granted cease to exist.

ADMISSION TO GRADUATE COURSES

Graduates of this or other institutions of approved standing may enter upon such lines of work as may be approved by the appropriate official of the college in which the work lies. When such students are enrolled in regular classes they will be subject to the ordinary rules of attendance and examination.

In the Colleges of Agriculture and Domestic Science, Engineering, Law, and Pharmacy:

Master's degree are conferred upon graduates in Agriculture, Horticulture and Forestry, Engineering, Law, and Pharmacy at the end of not less than one year's residence, which must be wholly devoted to the completion of an approved course of study in the University. Each candidate is required, in addition, to present an acceptable thesis upon some subject connected with his course of study.

In the Colleges of Arts, Philosophy, and Science, and Education:

Registration as a student in the Graduate School is open to all graduates of the College of Arts, Philosophy, and Science of this University, and to graduates of other colleges of this University, or of other universities or colleges who satisfy the Administrative Board that they are qualified to pursue with profit the work here offered in the lines of study which they wish to carry on.

Graduates of institutions of which the undergraduate courses of study are not substantially equivalent to the course prescribed in this University for the bachelor's degree will be required to do an additional amount of undergraduate work, or to prolong their term of residence, before being admitted to full candidancy for a higher degree.

Bachelors of this University or of other institutions who do not

wish to become candidates for a higher degree may be admitted as special graduate students.

Application for admission as a graduate student in the College of Arts, Philosophy, and Science should be addressed to Professor Benjamin L. Bowen, the chairman of the Administrative Board of Graduate Courses. Application for admission as a graduate student in the College of Education should be addressed to Professor Frank P. Graves.

DESCRIPTION OF SUBJECTS ACCEPTED FOR ADMISSION

Not all of these subjects are required for admission to any one college or course. For the specific requirements for admission to a particular college or course, see statement under that college. These descriptions are in general the same as those of the North Central Association of Colleges and Secondary Schools. A bulletin containing the more extended descriptions of the North Central Association will be sent to any address on request to the University Editor.

ENGLISH (three units)

The three units in English should cover the following subjects:

(a) GRAMMAR. The student should have a sufficient knowledge of English grammar to enable him at need to point out the syntactical structure of any sentence which he encounters in the prescribed reading. He should also be able to state intelligently the leading grammatical principles when he is called upon to do so. Whether this knoweldge is obtained in the elementary school and the secondary school combined or only in the elementary school is immaterial, provided the student have it; but in most cases it cannot be acquired except through regular study and practice in the lower grades and occasional reviews in the higher, and scarcely through these. A progressive and regular development of the grammar-sense from the lowest grades to the highest is much to be preferred to a sudden and unprepared-for injection of formal grammar at a particular stage, as for example, in the eighth grade.

(b) READING. The books prescribed form the basis for this part of the work. It is expected that all students shall read these books intelligently and appreciatively, but it is important to understand that the list is prescribed neither as a maximum nor as a

minimum requirement. Rather these books are intended to serve as a common center for which each school shall proceed with such wider courses of English study as it may find profitable. It is taken for granted that each school will arrange for a considerable amount of outside reading supplementary to the prescribed readings.

The list is divided into two parts, the first consisting of books to be read with attention to their contents rather than to their form, the second consisting of books to be studied thoroughly and minutely. The lists, thus divided, are as follows:

I. BOOKS PRESCRIBED FOR READING

For 1909, 1910, and 1911 ten books, selected as prescribed below from the following list: Group I (two to be selected): Shakespeare's As You Like It, Henry V. Julius Cæsar, The Merchant of Venice, Twelfth Night. Group II (one to be selected): Bacon's Essays; Bunyan's The Pilgrim's Progress, Part I; The Sir Roger de Coverly Papers in the Spectator; Franklin's Autobiography. Group III (one to be selected): Chaucer's Prologue; Selections from Spenser's Færie Queene; Pope's The Rape of the Lock; Goldsmith's The Deserted Village; Palgrave's Golden Treasury (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper and Burns. Group IV (two to be selected): Goldsmith's The Vicar of Warfield; Scott's Ivanhoe, Quentin Durward; Hawthorne's The House of the Seven Gables; Thackeray's Henry Esmond; Mrs. Gaskell's Cranford; Dickens' A Tale of Two Cities; George Eliot's Silas Marner; Blackmore's Lorna Doone. Group V (two to be selected): Irving's Sketch Book; Lamb's Essays of Elia; De Quincey's Joan of Arc and The English Mail Coach; Carlyle's Heroes and Hero Worship; Emerson's Essays (Selected); Ruskin's Sesame and Lilies. Group VI (two to be selected). Coleride's The Ancient Mariner; Scott's Lady of the Lake; Byron's Mazeppa and The Prisoner of Chillon; Palgrave's Golden Treasury (First Series), Book IV, with special attention to Wordsworth, Keats, and Shelley; Macaulay's Lays of Ancient Rome; Pope's Poems; Lowell's The Vision of Sir Launfal; Arnold's Sohrab and Rustum; Longfellow's The Courtship of Miles Standish; Tennyson's Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur; Browning's Cavilier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Evelyn Hope, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, The Boy and the Angel, One Word More, Hervé Riel, Pheidippides,

II. BOOKS PRESCRIBED FOR STUDY AND PRACTICE

For 1909, 1910, and 1911: Shakespeare's Macbeth; Milton's Lycidas, Comus, L'Allegro, and Il Penseroso; Burke's Speech on Conciliation with America, or Washington's Farewell Address and Webster's First Bunker Hill Oration; Macaulay's Life of Johnson, or Carlyle's Essay on Burns.

Changes for the year 1912: (1) Tennyson's Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur are inserted in the list of Books for Study as an alternative to Milton's poems. (2) Lycidas is dropped from the list of Milton's poems. (3) In group VI of the Reading List, Tennyson's Princess is substituted for the Idylls transferred to the Study List. (4) In Group V, Carlyle's Heroes and Hero Worship is changed to Carlyle's The Hero as Poet, The Hero as Man of Letters, and The Hero as King. (5) The number of books to be selected in Group V is changed from two to one. (6) In Group III, Book I, is substituted for Selections from Færie Queene. (7) In the preliminary statement of the requirement for Reading and Practice, nine is substituted for ten as the number of books to be offered for examination.

The above lists and requirements are intended to indicate in a general way the extent and character of the required work, and are not to be interpreted as limitations upon the teacher's choice. Books of equal merit, covering a similar range of literary types, will meet the requirements satisfactorily.

(c) COMPOSITION. Regular and persistent training in both written and oral composition should be given throughout the entire school course. In the high school, instruction in this subject should not be broken up into term or semester courses, but should be regarded as continuous throughout the four years. As regards the subjects for composition, they should be taken in the high school course partly from the list of books prescribed for study and practice, or from other literature which the class may read; partly from the student's own throught and experience. The topics should be so chosen as to give practice in the four leading types of prose discourse, namely, description, narration, exposition and argument.

(d) RHETORIC. It is expected that the student will be familiar with the essential principles of rhetoric. The instruction in this subject should begin early in the high school course in connection with the work in composition, and should include the following particulars: Choice of words; structure of sentences and para-

graphs; the principles of narration, description, exposition and argument.

[Text-books: Scott and Denney's Elementary Composition and Composition-Literature, or equivalents.]

HISTORY (four units)

1. ANCIENT HISTORY, with special reference to Greek and Roman history and including also a short introductory study of the more ancient nations and the chief events of the early middle ages, down to the death of Charlemagne (814). [Botsford's Ancient History for Beginners, or West's Ancient World, or Wolfson's Essentials in Ancient History, or an equivalent.]

2. MEDIAEVAL AND MODERN EUROPEAN HISTORY, from the death of Charlemagne to the present time. [Adams' European History or Harding's Essentials in Mediæval and Modern History, Myers' Mediæval and Modern History, or an equivalent.]

3. ENGLISH HISTORY. [Higginson and Channing's English History for Americans, or Walker's Essentials in English History, or Cheyney's Short History of England, or an equivalent.]

4. AMERICAN HISTORY, or American History and Civil Government. [McLaughlin's History of the American Nation, or Montgomery's Student American History, or an equivalent; Ashley's American Government, or an equivalent.]

MATHEMATICS (four units)

1. ALGEBRA. (One unit.) The four fundamental operations for rational algebraic expressions, factoring, highest common factor, lowest common multiple, complex fractions, the solution of equations of the first degree containing one or more unknown quantities, radicals, including the extraction of the square root of polynomials and numbers, and fractional and negative exponents. Quadratic equations and equations containing one or more unknown quantities that can be solved by the methods of quadratic equations, problems depending upon such equations.

2. PLANE GEOMETRY (one unit), including the solution of simple original exercises and numerical problems.

3a. ALGEBRA. (One-half unit.) A review of the essentials to be followed by ratio and proportion, and the binomical theorem for positive integral exponents. The progressions, the elementary treatment of permutations and combinations, and the use of four and five place tables of logarithms.

3b. SOLID GEOMETRY (one half unit), including properties of straight lines and planes, of dihedral and polyhedral angles, of projections, of polyhedrons, including prisms, pyramids and the regular solids, of cylinders, cones and spheres, of spherical triangles, and the measurement of surfaces and solids.

4a. ALGEBRA. (One-half unit.) Undetermined coefficients, the elementary treatment of infinite series, the binomial theorem for fractional and negative exponents, and the theory of logarithms. Determinants, and the elements of the theory of equations, including Horner's method for solving numerical equations.

4b. TRIGONOMETRY. (One-half unit.) Plane Trigonometry, including the definitions and relations of the six trigonometrical functions as ratios, proof of important formulæ, theory of logarithms and use of tables, solution of right and oblique plane triangles. Spherical trigonometry, including the proof of imporant formulæ and the solution of right and oblique spherical triangles with the proper interpretation of the ambiguous cases.

LATIN (four units)

1. LATIN LESSONS, accompanied from an early stage by the reading of very simple selections. Easy reading: twenty to thirty pages of consecutive text.

2. SELECTIONS FROM CAESAR'S GALLIC WAR equivalent in amount to four books; selections from other prose writers, such as Nepos, may be taken as a substitute for an amount up to, but not exceeding, two books.

The equivalent of at least one period a week in prose composition based on Cæsar.

3, 4. CICERO. Any six orations from the following list, but preferably the first six mentioned:

The four orations against Catiline, Archias, the Manilian Law, Marcellus, Roscius, Milo, Sestius, Ligarius, the fourteenth Philippic.

VERGIL. The first six books of the Aeneid.

The equivalent of at least one period a week in prose composition based on Cicero.

NOTE—In place of a part of Cicero an equivalent of Sallust's Catiline, and in place of a part of Vergil an equivalent of Ovid will be accepted.

GREEK (three units)

1. INTRODUCTORY LESSONS: Xenophon's Anabasis (20 to 30 pages). Practice in reading at sight and in writing Greek. Systematic study of grammar begun.

2. XENOPHON'S ANABASIS (continued), either alone or with other Attic prose (75 to 120 pages). Practice in reading at sight, systematic study of grammar, thorough grammatical review, and practice in writing Greek, both based on study of Books I and II of the Anabasis.

3. HOMER (2,500 to 4,000 lines); e. g., Iliad, I-III (omitting II, 494-end), and VI-VIII. Attic prose (33 to 40 pages), with practice in writing Greek, grammar, practice reading at sight.

GERMAN (four units)

1. During the first year the work should comprise: (a) Careful and persistent drill upon connected pronunciation; (b) The memorizing and frequent repetition of easy coloquial sentences; (c) Drill upon the rudiments of grammar; viz., upon word order, the inflection of the articles, of such nouns as belong to the language of everyday life, of adjectives, pronouns, weak verbs, and the more *usual* strong verbs; also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax; (d) Abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (e) The reading of from 50 to 100 pages of graduated texts from a reader or other text, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English). Besides parts of Readers available for first year's class-work, good selections may be made from Müller und Wenckebach's Glück Auf; Kern's (Grimm's) German Stories Retold; Guerber's Märchen and Erzählungen; Segligmann's Altes and Neues.

2. During the second year the work should comprise: (a) The reading of from 150 to 200 pages of suitable texts in the form of easy stories and plays; (b) Accompanying practice, as before, in the translation into German and easy variations upon the matter read; (c) Continued drill upon the essentials of the grammar, directed to the ends of enabling the pupil, first to use his knowledge with facility in the formation of sentences and, secondly, to state his knowledge correctly in the technical language of grammar.

Reading material suitable for the elementary course, other than that already mentioned, can be selected from the following list:

Andersen's Märchen and Bilderbuch ohne Bilder; Weidermann s Biblische Gerschichten; Arnold's Fritz auf Ferein; Baumbach's Die Nonna and Der Schwiegersohn; Gerstaecker's Germelshausen; Heyse's L'Arrabbiata, Das Mädchen von Treppi, Die Blinden; Storm's Immensee and Geschichten aus der Tonne, in St. Jürgen; Auerbach's Brigitta; Keller's Legenden; Fulda's Under vier Augen; Wildenbruch's Der Letzte, or, Das edle Blut; Frommel's Eingeschneit; Seidel's Aus Goldnen Tagen; Zschokke's Der zerbrochene Krug; Blüthgen's Das Peterle von Nürnberg.

3. The work of the third year should comprise: (a) A thorough and systematic review of the fundamental facts of grammar in connection with suitable practice in composition. A text-book, such as Harris', Wesselhoeft's, or Pope's German Composition, should be used for his purpose. Neither the teacher nor the pupil should trust himself to the process of merely "incidental" grammar and composition exercises. At least two recitation periods per week should be devoted to this purpose. (b) The reading of some 300-400 pages of moderately difficult prose. A selection may be made from the following texts: Ebner-Eschenbach's Die Freiherren von Gemperlein; Freytag's Die Journalisten or Bilder aus der deutschen Vergangenheit—for example, Karl der Grosse, Aus den Kreuzzügen, Dokter Luther, Aus den Jahrhundert des grossen Kreigs, Aus dem Staat Friedrich's des Grossen; Gerstaecker's Irrfahrten; Meyer's Der Schusz von der Kanzel; Goethe's Hermann und Dorothea; Hoffman's Historische Erzählungen; Lessing's Minna von Barnhelm; Meyer's Gustav Adolf's Page; Moser's Der Bibliothekar; Riehl's Novellen—for example, Burg Neideck, Der Fluch der Schönheit, Der stumme Ratsherr, Das Spielmannskind; Rosegger's Waldheimat; Schiller's Wilhelm Tell, Die Jungfrau von Orleans, Das Lied von der Glocke; Sudermann's Frau Sorge; selections from the poems of Uhland, Heine, Schiller, Goethe, etc.

4. The work of the fourth year should comprise the reading of about five hundred pages of good literature in prose and poetry, reference readings upon the lives and work of the great writers studied, the writing in German of numerous short themes upon assigned subjects, independent translation of English into German. Favored texts seem to be: Goethe's Sessenheim, Dichtung und Wahrheit, Egmont, Iphigenie; Schiller's Maria Stuart; Lessing's Minna von Barnhelm; Kleist's Michael Kohlhaas, Prinz von Homburg; Fulda's Der Talisman, Das Verlorene Paradies; Grillparzer's Der Traum ein Leben, Sappho; Ludwig's Zwischen Himmel und

Erde; Hebbel's Agnes Bernauer; Scheffel's Ekkehard; Hauff's Lichtenstein.

FRENCH (four units)

1. During the first year the work should comprise: (a) Careful drill in pronunciation; (b) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax; (c) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (d) the reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English), and in reproducing from memory sentences previously read; (e) writing French from dictation.

2. During the second year the work should comprise: (a) the reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (b) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (c) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (d) writing French from dictation; (e) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (f) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

3. The work of the third year should comprise the reading of from 400 to 600 pages of French of ordinary difficulty, a portion to be in the dramatic form; constant practice in giving French paraphrases, abstracts or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness; writing from dictation.

4. The work of the fourth year should comprise the reading of from 600 to 1,000 pages of standard French, classical and modern, only difficult passages being explained in the class; the writing of numerous short themes in French; the study of syntax.

SPANISH (four units)

1. During the first year the work should comprise: (a) Carefull drill in pronounciation; (b) the rudiments of grammar, in-

cluding the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives and pronouns, and the elementary rules of syntax; (c) exercises containing illustrations of the principles of grammar; (d) the reading and accurate rendering into good English of from 100 to 175 duodecimo pages of graduated texts, with translation into Spanish of easy variations of the sentences read; (e) writing Spanish from dictation.

2. During the second year the work should comprise: (a) the reading of from 250 to 400 pages of modern prose from different authors; (b) practice in translating Spanish into English, and English variations of the text into Spanish; (c) continued study of the elements of grammar and syntax; (d) mastery of all but the rare irregular verb forms and of the simpler uses of the modes and tenses; (e) writing Spanish from dictation; (f) memorizing of easy short poems.

3. In addition to the above, applicants must have had a third year of instruction, and should be able to read at sight ordinary Spanish prose or simple poetry, to translate into Spanish a connected passage of English based on the text read, and to answer questions involving an adequate knowledge of syntax.

4. In addition to the above, applicants must have had a fourth year of instruction, and should be able to read at sight, with the help of a vocabulary of special or technical expressions, difficult Spanish, whether prose or poetry; to write in Spanish a short essay on some simple subject connected with the works read; to put into Spanish a passage of easy English prose, and to carry on a simple conversation in Spanish.

PHYSICS (one unit)

1. The unit in physics consists of at least one hundred and eighty periods of forty-five minutes each (equal to 135 hours) of assigned work. Two periods of laboratory work count as one of assigned work.

2. The work consists of three closely related parts, namely, class work, lecture-demonstration work, and laboratory work. At least one-fourth of the time shall be devoted to laboratory work.

3. It is very essential that double periods be arranged for the laboratory work.

4. The class work includes the study of at least one standard text.

[A text-book should be used as a basis for the class-room work. Millikan and Gale, Carhart and Chute ("Elements"), Mann and Twiss, Hall and Bergen, Adams, are suitable texts. Many problems should be assigned for solution. Ordinarily a separate laboratory manual (Millikan and Gale or Cheston, Dean, and Timmerman, or equivalent) should be used.]

CHEMISTRY (one unit)

Text-books: McPherson and Henderson s Elementary Study of Chemistry, together with the Exercises in Chemistry arranged to accompany the same, or the equivalent. The course should consist of at least three recitations and four hours of laboratory work weekly throughout the year.

It is of the greatest importance that the student should thoroughly grasp the general elementary principles of the science rather than spend time in simply acquiring detailed information in regard to substances. Great care should be taken to see that the student has a clear conception of a theory and of the part theories play in the progress of science, and that in a discussion of any subject he clearly differentiates between fact and theory. The solution of problems pertaining to the subjects under discussion should be encouraged.

In the laboratory it is of fundamental importance that the student should acquire accuracy and neatness and that he should always work with a well defined object in view. Under no conditions should a student be permitted to proceed with an experiment until he clearly understands the object of the experiment. Moreover, any apparatus which is constructed for the carrying out of an experiment should be rigidly examined by the teacher and only after his approval should the student be allowed to proceed.

PHYSICAL GEOGRAPHY* (one unit)

a. The study of one of the leading secondary text-books in physical geography, for the sake of essential principles, and of well-selected facts illustrating those principles.

b. Individual laboratory work should occupy from one-fourth to one-half of the time of the student in the class room. Field trips should take the place of some of the laboratory work in autumn and spring. The results of laboratory work should be carefully re-

*For the present the combination of any two of the following as one unit will be accepted by the University: Physical Geography, Zoology, Botany, and Physiology.

corded in writing, and in many cases should be made the basis of class-room discussion. Similarly the field work should be made the basis of written reports or of subsequent class-room discussion, or both. In general the laboratory and the field should be made to afford illustrations of as many principles and phenomena as possible.

[Text-books recommended: Salisbury (Briefer Course), Dryer, Gilbert and Bingham, Tarr, Davis, Hopkins, or an equivalent.]

ZOOLOGY* (one unit)

A high school course in Zoology should have for its objects: (1) To acquaint the student with the common animals of his own neighborhood, with the various environments of these animals, with the structural adaptations which the animals show to their environment and with their habits and economic importance. (2) To afford training in critical methods of making and recording observations both by drawing and by writing, both in the laboratory and in the field. (3) To teach enough of the interpretation of the observed facts that the student may understand the current methods of interpretation from the morphological, physiological, and ecological standpoints. In other words, with the sudy of the structures there should go an interpretation of their use (physiology, ecology) and of their past history (evolution). An elementary training in both experimental and comparative methods should be sought, and the peculiar value of such training as a means of intellectual development should not be overlooked. Ability on the part of the student to observe and think independently is especially desired.

For a course extending through the year, with four periods per week, it is recommended that the laboratory and field work consist of the study of at least ten type forms, to be selected from the following lists:

(1) An insect. (2) The crayfish. (3) An earthworm, leech, or fresh water oligochaete. (4) An Amoeba or other protozoan. (5) Hydra or a hydroid. (6) A mussel or snail. (7) A fish. (8) A frog, or turtle. (9) A bird. (10) A mammal.

As far as possible, the work on each type should be begun by collecting by the students, chiefly of the type form, but incidentally

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of as many as possible of other forms belonging to the same group. Some of the animals collected should be kept living, and the subsequent study should, where practicable, be made on living material. The work on each type should include:

1. Structure. The structural work should consist chiefly of external morphology, and the structures should be considered as adaptations. It is not intended to eliminate individual dissection, but it is thought that the amount of individual dissection may be much lessened and that internal structures may be studied in part by means of anatomical preparations made by the teacher and by means of models and charts. In connection with each system of organs the special physiology of the system should be taught and should be illustrated by experiments. Physiology should not be taught merely as an inference from structure. The physiological instruction may be profitably concentrated on two types, one invertebrate and one vertebrate, preferably the insect and the frog. By this plan physiological work on other types may be minimized.

2. Behavior and Habits. These should be considered in connection with the study of its structure, and where practicable the behavior should be studied first and the structures necessary to the behavior considered afterward. It is believed that more interest will be aroused by finding out first what the animal does and then studying the structures which it uses; but it will often be found necessary to reverse this order.

3. Study of Related Forms. It is not meant that the course should be limited to the study of the type forms, but rather that, in each group, the type form should be the basis upon which to build an acquaintance with the commoner related forms in the local fauna. The scientific names and the classification of these forms need not be taught, but rather sight recognition of many forms and their common names, with a reference of each to the group represented by the laboratory type. Although it is not intended that taxonomy should be taught, nevertheless individual students who show an aptitude for it should be provided with literature and should receive every encouragement from the teacher to carry on voluntary work in collecting and classifying animals.

4. Ecology. Animal ecology includes not only a study of the habits of animals referred to, but also a study of the relations of animals to their environment. This branch of zoology, which must be in part carried on in the field, attempts to determine how animals maintain themselves in their environment and why animals in

a given environment give place to others when the physical and other characteristics of the environment are altered.

BOTANY* (One unit)

The course in Botany should be given in the third or fourth year of the high school and should be preceded by a certain amount of nature study, both in the grades and in the first two years of the high school. The work should begin with the Angiosperms, the student being led from his knowledge of the common plants about him to the study of unknown structures and functions. Only after a fair knowledge of the higher plants has been acquired should he be formally introduced to the lower forms.

In general it is recommended that the first course in Botany should consist of recitations from a text-book, a number of demonstrations with the compound microscope, demonstrations of the more fundamental physiological processes, work in the laboratory with a dissecting microscope, field work, and practice in the identification of the common wild and cultivated plants of the locality, together with some reference to their uses. It is also desirable to have the students make a small herbarium.

The book used should be one of the more recent texts, as Coulters' Bergen's, Andrews', Atkinson's, or Stevens'. For identification, a small local flora, like Kellerman's Spring Flora, will give the best results.

PHYSIOLOGY†

Text-books: Colton's Briefer Course, or an equivalent. No credit will be accorded in this subject for work done below the ninth year.

AGRICULTURE, FREEHAND DRAWING, MANUAL TRAINING, DOMESTIC SCIENCE

The total credit allowed by the University for the above subjects will not exceed two units. The credit will be granted by the Entrance Board after investigating each claim.

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*For the present the combination of any two of the following as one unit will be accepted by the University: Physical Geography, Zoology, Botany, and Physiology.

†Accepted by the University for the present only when offered in combination with one of the following: Physical Geography, Zoology, and Botany, as one unit.

AGRICULTURE (One-half or one unit)

One-half Unit—One-half year given to the study of soils and plants and their relation to each other. There shall be sufficient experimental work to accompany the subjects discussed.

One Unit—One full year shall be given to study of soils, plants, insects, and farm animals. There shall be sufficient experimental and demonstration work to be equivalent to one full year's laboratory work. Text books should be of such a standard as Jackson and Dougherty's Agriculture through the Laboratory, or Bailey's First Principles of Agriculture.

FREEHAND DRAWING (One-half or one unit)

The minimum time to be given for one unit should be the equivalent of 240 hours of sixty minutes. Preferably two double periods per week.

For one-half unit credit the work should be principally representative drawing, and for one unit at least one-half the time should be given to this work.

Mediums used: Pencil, charcoal, water color, crayons. The work should cover studies from objects, plant forms, pose drawing, landscape, and composition; illustrating proportion, perspective, values, texture and surface modeling, and may include also decorative design—conventionalized plant forms, units, borders, corners, arrangement of straight lines and of straight and curved lines, stencils, geometric designs, historic ornament.

MANUAL TRAINING (Not to exceed two units)

The minimum time given for one-half unit in Manual Training should not be less than the equivalent of 120 hours of sixty minutes each. This Manual Training should be preceded or accompanied by Mechanical Drawing.

Bench Work. One-half unit. Care and use of the tools for measuring, squaring, sawing, planing, gauging, boring, chiseling, clamping, and finishing. Use of woods, nails, screws, glue. Use of oils, stains, filling, shellac, and varnish. Elementary constructions involving different forms of joints used in framing, cabinet work, and pattern making. Designing.

Wood Turning. One-half unit. Care and use of lathe and tools. Turning of different woods. Centering, roughing, straight

and taper turning, convex turning, concave and compound curve turning, beading, face plate turning, face and plug chuck work.

Pattern Work. One-half unit. Drafts, shrinkage, and finish allowances. Parted patterns, dowels, fillets, fasteners, core prints and core boxes, built-up patterns, ribbed patterns.

Cabinet Work. One-half unit. Furniture involving the common methods of construction and including panels, drawers, hinges, staining and fuming, filling and finishing. Each student should design his work and make complete drawings for it.

Machine Tool Work. One-half unit. Work on the engine lathe, drill press, planer and shaper, involving such elementary principles as centering, straight and taper turning on external and internal surfaces, screw cutting, chuck and face plate work, filing and polishing, drilling, planing, and shaping.

Forging. One-half unit. Management of forge, fire and tools. Practice involving the processes of drawing out, bending, twisting, upsetting, splitting, punching, forming, fullering, swaging, welding, case-hardening, annealing, hardening and tempering.

HOUSEHOLD ARTS AND SCIENCE (Not to exceed two units)

1. PLAIN SEWING (One unit)

Every exercise in sewing should illustrate an important principle or process, or a simple combination of such principles and processes. Hand sewing and sewing machine work must be equally insisted upon.

(a) The various stitches and their special uses.

(b) Hand sewing, fundamental processes.

(c) The use and care of sewing machines and their attachments.

(d) The nature and special uses of cotton, linen, and woolen goods.

(e) The use of patterns; cutting out.

(f) Taking measurements; making of simple garments.

2. SEWING AND MILLINERY (One unit)

(a) Making of shirt waists, wash dresses, and similar garments.

(b) Millinery. Study of material for hats; making, altering, and covering hat frames. The planning, making, and trimming of seasonable hats of appropriate materials.

Throughout the course economy and good taste in dress.

COOKING (Two units)

1. Food classified and tested for food principles.

A study of the effect of heat upon foods alone and in combination; experiments with leavening agents, and their uses shown in actual cooking. Bread making. The theory and practice of canning and preserving fruits, vegetables, and meats. Planning, cooking, and serving meals. Waiting on table.

2. The cost of food; market prices; the cost of meals. Household accounts. The family dietary. The planning, weighing, and cooking of apportioned meals. Diets for infants, invalids, and convalescents.

Sanitation. Selection of site, house planning; heating, lighting, and ventilating; water supply; disposal of waste; furnishing and decorating; cleaning processes, including laundry work.

LIST OF ACCREDITED AND RECOGNIZED SCHOOLS IN OHIO

Accredited schools are those four-year secondary schools whose courses of study have been found by inspection to be capable of satisfactorily preparing students for all colleges of the University.

Recognized schools are those three or four-year secondary schools whose courses of study are not capable of preparing students for all colleges of the University, but which have been found by inspection to cover satisfactorily 10 units of the requirements for admission.

These lists are subject to change from year to year as schools are revisited. Persons are advised, therefore, to consult the latest bulletins and catalogues of the University A, shows that a school is accredited; R, that it is recognized.

School	Superintendent	Principal
Akron, A	H. V. Hotchkiss	D. C. Rybolt
Alliance, R	J. E. Morris	J. E. Vaughan
Andover, R	S. A. Harbourt	Mary McDonald
Arcanum, R	O. G. Hershey	C. W. Bingman
Ashland, R	John A. McDowell	R. C. Clark
Ashley, R	L. K. Wornstaff	Lydia Marsh
Ashtabula, A	E. A. Hotchkiss	
Ashtabula Harbor, R	Robert W. Paterson	John E. Ransom
Ashville, R	Stanley Lawrence	Stanley Lawrence
Athens, A	B. O. Skinner	Zella Foster
Baltimore, R	J. H. Horton	J. J. Wagner
Barberton, R	J. M. Carr	G. M. Korns
Barnesville, A	W. R. Butcher	A. H. Denbrock
Batavia, R	F. P. Timmons	Cecile Hulick
Beaver Creek Twp., (Greene Co.) R	R. S. Parsons	R. S. Parsons
Bedford, R	O. W. Kurtz	Miss G. L. Thomas
Bellaire, A	Wilson Hawkins	J. A. Jackson
Bellefontaine, A	J. W. MacKinnon	Annie A. Price
Bellevue, A	E. F. Warner	H. C. Bates
Berea, R	J. B. Mohler	A. G. Yawberg
Berlin Heights, R	A. L. Irey	Estella Ashwell
Bethel Township, Clark Co., R	A. K. Morris	Hester Pherson
Bethel Township, Miami Co., R	R. W. Crist	F. K. Stafford

School	Superintendent	Principal
Blanchester, R	C. L. Leahy	H. T. Miller
Bluffton, R	C. A. Arganbright	I. W. Geiger
Bowling Green, A	N. D. O. Wilson	Walter F. Shaw
Brookville, R	A. A. Maysilles	Elizabeth Zehring
Bryan, A	J. W. Wyandt	Orville Smith
Buchtel College Academy, A		C. O. Rundell
Bucyrus, A	W. N. Beethan	C. H. Miller
Byesville, R	B. M. Thompson	R. M. Marlowe
Cadiz, R	J. R. Lehman	S. L. Eby
Caldwell, R	J. E. Clark	C. M. Young
Cambridge, A	H. Z. Hobson	John H. Harding
Camden, R	W. S. Fogarty	J. W. Gowdy
Canal Dover, A	F. P. Geiger	A. J. Huffman
Canal Winchester, R	A. A. McEndree	Sara Brown
Canton, A	John K. Baxter	Chas. A. Armstrong
Cardington, R	F. H. Flickinger	W. J. Banker
Carey, R	A. J. Nowlan	Mattie Myers
Carroll, R	E. C. Dilger	J. H. Cooper
Carthage, R	C. A. Wilson	Louise Sherer
Cedarville, R	F. M. Reynolds	L. T. Marshall
Celina, R	S. Wilkin	J. W. Pogue
Centerburg, R	H. C. Fickell	Lottie Grandstaff
Central Institute (Cleveland), R		James G. Hobbie
Chardon, A	W. R. Davis	Leila B. Phinney
Chicago, R	E. A. Evans	J. H. Booth
Chillicothe, A	F. E. C. Kirkendall	W. H. Rice
Cincinnati—	F. B. Dyer	
Hughes, A		E. W. Coy
Walnut Hills, A		W. T. Harris
Woodward, A		E. D. Lyon
Circleville, A	W. E. Sealock	D. B. Clark
Cleveland—	W. H. Elson	
Central, A		Edward L. Harris
East, A		B. U. Rannells
Lincoln, A		B. Smiley
South, A		G. A. Reutenik
West, A		C. P. Lynch
Glenville, A		H. H. Cully
Cleveland Heights, A	C. A. Tilden	C. A. Tilden
Clintonville, R	W. S. Jennings	W. S. Jennings
Clyde, R	A. L. Gantz	Leroy Patton
College Corner, R	C. E. Gillespie	Edith Francisco
College Hill, A	W. H. Altamer	G. M. Tremper
College of Ursuline Sisters (Tiffin) R		Sister Mary Agnes
Collinwood, A	Frank P. Whitney	F. C. Rulon
Columbiana, R	T. F. Johnson	Linda L. Snyder

School	Superintendent	Principal
Columbus—	Jacob A. Shawan	
Central, A		W. M. Townsend
East, A		J. D. Harlor
North, A		C. D. Everett
South, A		C. S. Barrett
Columbus School for Girls, A		Miss G. L. Jones Miss Alice Gladden
Columbus Grove, A	J. T. Begg	W. E. Stevens
Conneaut, A	Calvin T. Northrop	Louise E. Kahler
Corning, R	F. W. Huston	J. S. Saffell
Coshocton, A	C. E. Bryant	F. D. Garbison
Covington, A	L. J. Bennett	Frances Bowdle
Crestline, R	H. D. Clarke	G. A. Davis
Crooksville, R	M. G. Calhoun	George W. DeLong
Cumberland, R	G. E. Bell	W. S. Kingston
Cuyahoga Falls, R	W. H. Richardson	H. O. Bolich
Dayton, A	E. Brown	Chas. L. Loos, Jr.
Defiance, A	H. B. Mullholand	
DeGraff, R	N. H. Stull	R. B. Curl
Delaware, A	W. McK. Vance	Maude I. Myers
Delphos, A	E. L. Mendenhall	I. F. Matteson
Delta, A	G. W. Hoffman	Viola B. Wilkins
Dennison, R	W. H. Angel	I. A. Wilson
Deshler, R	W. M. Schumacher	E. O. Fairchild
Doane Academy (Granville), A		H. R. Hundley
Dresden, R	E. E. Smock	Ida Warden
East Cleveland, A	W. H. Kirk	W. H. Kirk
East Liverpool, A	F. H. Warren	Florence Updegraff
Eaton, A	F. B. Bryant	John O'Leary
Edgerton, R		
Eldridge's School (Worthington), R		Mrs. Gertrude D. Eldridge
Elyria, A	W. R. Comings	H. M. Ebert
Euclid, R	J. C. Oldt	Mary E. Gould
Fayette, R	C. D. Perry	E. M. Hoover
Findlay, A	J. W. Zeller	J. F. Smith
Forest, R	A. D. Ladd	C. W. McCleary
Fort Recovery, R	James Ross	Charles Sunderman
Fostoria, A	R. W. Solomon	Ida McDermott
Franklin, R	F. B. Harris	T. H. Rogers
Franklin School (Cincinnati), A		Joseph E. White G. S. Sykes
Fredericktown, R	W. W. Borden	W. W. Borden
Fremont, A	J. E. Collins	H. M. Lowe
Friends' Boarding School (Barnesville), R		B. J. Thomas

School	Superintendent	Principal
Galion, A	I. C. Guinther	E. H. White
Gallipolis, A	H. E. Conard	L. W. MacKinnon
Garrettsville, R	E. F. Robison	V. A. Libbey
Geneva, A	J. E. Fitzgerald	J. D. Marshall
Georgetown, R	A. F. Waters	H. H. Arnston
Germantown, A	C. W. McClure	S. M. Heitz
Gibsonburg, R	S. H. Benson	R. E. Stone
Girard, R	B. D. Hirst	W. Ray Wheelock
Glendale, A	E. H. Foster	E. H. Foster
Grand River Institute, A		E. W. Hamblin
Granville, R	J. R. Clements	Flora Hoover
Greenfield, A	E. W. Patterson	Roy Harris
Greenville, A	J. J. Martz	J. L. Selby
Greenwich, A	J. H. Diebel	Wm. Tait
Grove City, R	A. C. Fries	C. F. Neiswender
Groveport, R	M. C. Warren	J. F. Paxton
Hamilton, A	Darrell Joyce	W. P. Cope
Harmony Township (Clark Co.), R	David Neer	Carlton Henry
Harrison, R	Thos. P. Pierce	Mary A. Curran
Harrison Twp., (Mont. Co.), R	D. W. Klepinger	W. H. Leiter
Harrison Twp (Preble Co.), R	C. S. Bunger	C. A. Huffman
Hartwell, A	J. S. Trisler	J. C. Mauchley
Hicksville, R	C. C. Nardin	A. Z. Penrose
Highland, R	C. W. Johnson	Anna G. Smith
Hilliards, R	Chauncey Lawrence	J. B. Phillips
Hillsboro, A	W. E. Arter	J. B. Conard
Home City, R	J. O. Falkinburg	Clara E. Falkinburg
Hudson, R	T. F. Leonard	Marion Stockwell
Huron, R	A. C. Alleshouse	M. Luella Barran
Ironton, A	S. P. Humphrey	T. Howard Winters
Jackson, A	J. E Kinnison	M. A. Henson
Jamestown, R	R. S. Harmount	Martha J. Crawford
Johnstown, R	L. C. Brown	C. M. Layton
Jefferson, A	H. S. Foote	Mary I. Hoskins
Jeffersonville, R	M. E. Wilson	Mrs. Mary A. McCoy
Junction City, R	W. L. Edmund	J. H. Clause
Kent, A	R. P. Clark	W. A. Walls
Kenton, A	N. E. Hutchinson	Joseph T. Glenn
Kingston, R	C. M. Agler	Anna K. Korst
Kingsville, R	W. B. Simcox	
Kirtland, R	A. R. Morris	

School	Superintendent	Principal
Lakeside, A	H. O. Hannah	Margaret Hull
Lakewood, A	J. M. H. Frederick	H. W. Kennedy
Lancaster, A	H. A. Cassidy	W. C. Brashares
Lebanon, A	J. M. Hamilton	J. W. Lyle
Leetonia, R	J. W. Moore	C. C. Kochheiser
Leipsic, R	W. S. Sackett	Le Roy Buckingham
Leroy, R	Chas. J. Correll	
Lexington, R	H. H. Phelps	David Frasher
Lima, A	J. A. Davidson	S. Steffens
Lima Twp., (Licking Co.), R	E. T. Osborn	A. R. Shadle
Lisbon, A	G. M. Bingham	H. S. Moffitt
Lockland, A	S. T. Dial	Howard Hollenbach
Logan, A	H. F. Silverthorn	Chas. C. Garman
London, A	Wm. McClain	Marion Schlesinger
Lorain, A	A. C. Eldredge	D. J. Boone
McConnellsville, R	G. R. Warman	L. E. Booker
Madison, R	Geo. C. Von Beseler	Lois Ellet
Madison Township (Pickaway Co.), R	Charles C. Evans	Charles C. Evans
Madisonville, A	C. M. Merry	
Mad River Township (Enon Village). R	J. R. Clarke	J. R. Clarke
Malta, R	George M. Strong	L. E. Coulter
Mansfield, A	H. H. Helter	Harland E. Hall
Mantua, R	C. F. Becker	Alice M. Chalker
Marietta, A	J. V. McMillan	W. H. Maurer
Marion, A	H. L. Frank	C. H. Winans
Martins Ferry, A	L. E. York	O. C. Hursh
Marysville, A	L. B. Demorest	D. H. Sellers
Massillon, A	C. L. Cronebaugh	Goffrey A. Lyon
Mechanicsburg, A	J. W. Bowen	W. G. Snavley
Medina, A	C. C. Carlton	Charles Bulger
Miamisburg, A	W. T. Trump	Harris V. Bear
Middleport, R	A. W. McKay	Sara R. Brown
Middletown, A	Arthur Powell	Geo. C. Stahl
Milan, R	J. W. Brown	Estella Hinely
Milford, R	J. L. Fortney	L. D. Grannis
Millersburg, A	O. O. Fisher	A. W. Elliott
Mingo Junction, R		
Montpelier, R	T. G. Paseo	F. W. Leist
Morrow, R		
Mt. Gilead, R	C. B. Stoner	F. J. Ryan
Mt. Pleasant, R	F. D. Ring	C. E. Hoskinson
Mt. Sterling, R	Frank E. Wilson	Kathryn Weber
Mt. Vernon, A	J. S. Alan	R. E. Offenhauer
Napoleon, A	P. C. Zemer	F. W. Leist
Nelsonville, A	Aaron Grady	O. C. Jackson
Newark, A	J. D. Simkins	T. Otto Williams
New Bremen, R	C. F. Limbach	J. Halsema
New Carlisle, R	Alfred Ross	Ada B. Koontz
New Holland, R	G. A. Bricker	E. N. Dietrich

School	Superintendent	Principal
New Lexington, R	J. M. Gordon	E. C. Bussert
New London, A	W. H. Mitchell	Stella M. Townsend
New Lyme Institute, A		H. C. White
New Philadelphia, A	G. C. Maurer	G. A. Wyly
New Richmond, R	S. L. Turnipseed	Margueret T. Rowell
New Vienna, R	J. L. Cadwallader	Clifford Thompson
Niles, R	F. J. Roller	W. H. C. Newington
North Baltimore, A	G. L. Brown	Elizabeth Brown
Norwalk, R	A. D. Beechy	James E. Cole
Norwood, A	W. S. Cadman	W. W. McIntire
Nothingham, A		
Oak Harbor, A	H. H. Hoffman	G. F. Aschbacher
Oberlin, A	R. L. Rawdon	W. H. McCall
Oberlin Academy, A		J. F. Peck
Ohio Military Institute, R	A. M. Henshaw	S. P. C. Roberts
Orrville, R	A. H. Etling	A. J. Gerber
Osborn, R	W. H. Batson	Winifred Creamer
Ottawa, A	G. J. Keinath	L. F. Gehres
Oxford Col. Acad., A	Jane Sherzer	Catherine Cox
Painesville, A	F. H. Kendall	A. H. Mabley
Pandora (Riley Township), R	C. D. Steiner	Cary O. Altman
Pataskala, R	E. E. Atwell	J. C. Evans
Paulding, R		
Pemberville, R	D. J. Williams	Wynonah Thompson
Piqua, A	J. R. Beachler	D. R. Ellabarger
Plain City, R	J. A. Runyan	Lola A. Smythe
Pleasant Hill, R	S. C. Morton	J. H. Beeson
Pleasant Ridge, A	F. L. Simmerman	
Pleasantville, R	E. L. Porter	C. W. Andrews
Plymouth, R	C. M. Carrick	Elva Kegerreis
Pomeroy, R	C. T. Coates	Dollie Hooper
Port Clinton, R	C. C. Underwood	Charlotte M. Ward
Portsmouth, A	Frank Appel	W. D. Gilliland
Quaker City, R	W. G. Wolfe	J. O. Eagleson
Ravenna, A	E. O. Trescott	H. B. Turner
Reynoldsburg, R	Wm. S. Coy	Lucy Brinkerhoff
Richwood, R	R. H. Allison	B. C. Smith
Ripley, R	R. B. Smith	H. L. Geesling
Rockford, R		
Sabina, R	M. J. Flannery	Leo E. Plymire
Salem, A	J. S. Johnson	B. F. Stanton
Sandusky, A	H. B. Williams	Geo. C. Dietrich
Shawnee, R	S. D. Basinger	Kate Stoyle
Shelby, A	S. H. Maharry	D. J. Schaeffer

School	Superintendent	Principal
Sidney, A	Herbert R. McVay	Lee A. Dollinger
Smead School (Toledo), A	Mary E. Smead	Rose Anderson
Somerset, R	W. L. Atwell	R. E. Beck
South Charleston, R	H. W. Paxton	Mrs. E. W. Bradley
Spencerville, R	Thos. J. Class	Wm. Carolus
Springfield, A	Carey Boggess	C. C. Patterson
Steubenville, A	R. L. Ervin	J. Vernon Cox
St. Mary's, A	C. C. McBroom	J. Howard Spohn
St. Paris, R	Jas. H. Fortney	Florence Hunter
St. Raphael's School, A		Sister Rosetta
Sunbury, R	J. J. Phillips	Milton Utley
Swanton, R	C. O. Castle	L. W. Bates
Tiffin, A	C. A. Krout	H. H. Frazier
Tippecanoe City, R	E. R. Rike	A. C. Pense
Toledo, A	Chas. L. Van Cleve	Wm. B. Guitteau
Troy, A	C. W. Cookson	Edward M. Traber
Uhrichsville, A	L. E. Everett	C. W. Jackson
Union City (Ind.), A	O. H. Blossom	Carl H. Mote
University School (Avond., Cin.), A		William E. Stillwell
University School (Cleveland), A		Harry A. Peters
Upper Sandusky, A	R. J. Kiefer	E. L. Wolff
Urbana, A	I. N. Keyser	H. N. Morton
Urbana Univ., A	Paul H. Seymour	Russell Eaton
Ursuline Acad. (Brown Co.), R		Sister M. Baptista
Utica, A	F. P. Householder	
Van Wert, A	J. P. Sharkey	Orrin Bowland
Vermillion, R	J. C. Seemann	F. H. Cronin
Wadsworth, R	Frank L. Lytle	A. J. Krabill
Wapakoneta, A	F. E. Reynolds	Mary O. Conrath
Warren, A	C. E. Carey	F. E. Ostrander
Washington C. H., A	James T. Tuttle	Frederic C. Peters
Wauseon, A	C. J. Biery	Orille Eastman
Waverly, R	J. F. Henderson	W. C. Dyer
Wellington, A	R. H. Kinnison	Elizabeth Day
Wellston, A	E. S. McCall	J. W. Whiteside
Wellsville, A	J. L. MacDonald	Ruby C. Mason
West Alexandria, R	L. D. Brouse	Clara Smith
Westerville, R	Lew. W. Warson	J. F. Nave
West Jefferson, R	L. C. Dick	Maie Walker
West Liberty, R	Lewis F. Hale	C. E. Gilbert
West Mansfield, R	O. H. Maffet	Mary J. Holloway
West Milton, R	Lee Waldorf	C. H. Teach
West Unity, R	W. A. Salter	Mable Tinkham

School	Superintendent	Principal
Willoughby, A	S. D. Shankland	Edward M. Ottis
Wilmington, A	E. P. West	F. P. Blair
Woodsfield, R	H. J. Scarborough	W. G. Wolff
Wooster, A	D. L. Thompson	Laura B. Kean
Worthington, R	J. J. McDonald	Arthur L. Sperry
Wyoming, A	C. S. Fay	Evelyn M. Prichard
Xenia, A	Edwin B. Cox	Geo. J. Graham
Xenia Main St. School, R		
Youngstown, A	N. H. Chaney	Wells L. Griswold
Zanesville, A	W. D. Lash	Ira C. Painter

ACCREDITED SCHOOLS OF OTHER STATES

COLORADO—Aspen; Canon City; Canon City—South; Colorado Springs; Colorado State Preparatory (Boulder); Cripple Creek; Delta; Denver—East Side, West Side, North Side, South Side, Manual Training; Durango; Florence; Fort Collins; Fort Morgan; Golden; Grand Junction; Greeley; Idaho Springs; Leadville; Longmont; Loveland; Monte Vista; La Junta (Otero County); Pueblo—District 1, District 20; Rocky Ford; Salida; Trinidad; Victor.

ILLINOIS—Alton; Aurora—East, West; Belleville; Belvidere—North, South; Bloomington; Blue Island; Bradley Polytechnic Institute (Peoria); Cairo: Carthage; Carthage Col. Academy; Centralia; Champaign; Chicago—Austin, Calumet, Crane (Man. Tr.), Curtis, Englewood, Hyde Park, Lake, Lake View, Marshall, McKinley, Medill, Phillips, South Chicago, Tuley, Waller; Chicago Heights (Bloom Tp.); Clinton; Danville; Decatur; DeKalb Tp.; Des Plaines (Maine Tp.); Dixon; Dundee; Duquoin Tp.; Elgin; Elgin Academy; Evanston Tp.; Evanston Academy; Ferry Hall (Lake Forest); Francis Shimer Academy; F.W. Parker (Chicago); Freeport; Galva; Grand Prairie Seminary (Onarga); Harrisburg Tp.; Harvey (Thornton Tp.); Highland Park (Deerfield Tp.); Hinsdale; Hoopeston; Ill. Woman's Col. Prep. Dept. (Jacksonville); Jacksonville; Joliet Tp.; J. Sterling Morton Tp.; Kankakee; New Trier Tp.; Kenwood Institute (Chicago); Kewanee; Lake Forest Academy; La Salle (Peru Tp.); Lovington Tp.; Lyons Tp. (La Grange); Macomb; Marshall; Mattoon; Maywood and Melrose Park Tp.; Moline; Monmouth; Morgan Park; Mt. Vernon Tp.; Normal; N. W. Military Academy; Oak Park Tp.; Ottawa Tp.; Pekin; Peoria; Polo; Pontiac Tp.; Princeton Tp.; Quincy; Rochelle; Rockford; Rock Island; Savanna Tp.; Springfield; Sterling Tp.; Streator Tp.; Sycamore; Taylorville Tp.; Tuscola; Urbana; Waukegan Tp.; Western Mil. Acad. (Upper Alton); Wheaton.

INDIANA—Alexandria; Anderson; Angola; Attica; Bedford; Columbus; Connersville; Crawfordsville; Evansville; Ft. Wayne; Frankfort; Franklin; Goshen; Greenfield; Greensburg; Howe

(Lima); Huntington; Indianapolis—Manual Training, Shortridge; Lafayette; La Porte; Michigan City; Mishawaka; Mount Vernon; Muncie; New Albany; New Castle; Noblesville; Peru; Plymouth; Rensselaer; Rochester; Rushville; Seymour; South Bend; Terre Haute; Tipton; Union City; Valparaiso; Wabash; Warsaw; Washington.

IOWA—Algona; Ames; Boone; Burlington; Cedar Rapids; Centerville; Cherokee; Clarinda; Clinton; Corning; Corydon; Council Bluffs; Cresco; Creston; Davenport; Decorah; Denison; Des Moines—East, North, West; Dubuque; Eagle Grove; Fort Dodge; Grinnell; Ida Grove; Independence; Iowa City; Keokuk; Marengo; Marion; Marshalltown; Mason City; Missouri Valley; Muscatine; Newton; Osage; Onawa; Oskaloosa; Ottumwa; Red Oak; Sac City; Sheldon; Sioux City; Spencer; Villisca; Vinton; Washington; Waterloo—East, West; West Liberty.

KANSAS—Abilene, Arkansas City; Emporia; Ft. Scott; Hiawatha; Holton; Iola; Junction City; Kansas City; Lawrence; Leavenworth; Ottawa; Paola; Summer Co. (Wellington); Topeka; Wichita; Winfield.

MICHIGAN—Adrian; Albion; Alpena; Ann Arbor, Battle Creek; Bay City—East, West; Belding; Benton Harbor; Benton Harbor Col. Inst.; Bessemer; Big Rapids; Birmingham; Cadillac; Calumet; Caro; Charlotte; Cheyboygan; Chelsea; Coldwater; Crystal Falls; Detroit—Central, Eastern, Higgins, Home and Day, Macmillan, University, Western; Dowagiac; Escanaba; Grand Rapids; Grand Haven; Hancock; Hastings; Holland; Houghton; Howell; Ionia; Iron Mountain; Ironwood; Ishpeming; Jackson; Kalamazoo; Lake Linden; Lansing; Ludington; Manistee; Manistique; Marshall; Marquette; Menominee; Monroe; Muskegon; Mt. Clemens; Mt. Pleasant; Negaunee; Niles; Norway; Otsego; Petoskey; Pontiac; Port Huron; Portland; Saginaw—East, West; Sault Ste. Marie; South Haven; St. Johns; St. Joseph; Three Rivers; Traverse City; Union City; Wyandotte; Ypsilanti.

MINNOSTA—Albert Lea; Anoka; Austin; Blue Earth; Cloquet; Duluth Central; Eveleth; Fairmount; Fairbault; Fergus Falls; Grand Rapids; Hastings; Hibbing; Hutchinson; Lake City; Mankato; Marshall; Minneapolis—Central, East, North, South, West; Montevideo; Moorhead; Morris; New Ulm; Northfield; Owatonna; Red Wing; Rochester; St. Cloud; St. James; St. Paul—Central, Cleveland, Humbolt; St. Peter; Sleepy Eye; Stillwater; Two Harbors; Virginia; Waseca; Wells; Willmar; Winona.

MISSOURI—Blees Military Academy (Macon); Carrolton; Carthage; Drury College Academy (Springfield); Hardin College (Mexico); Kansas City—Central, Manual Training, Westport; Kemper Military School (Booneville); Maryville; Mexico; Nevada; Poplar Bluffs; Saint Louis—Central, McKinley, Yeatman, Smith Academy, Hosmer Hall, Manual Training; Saint Joseph; Sedalia; Stephens College; Trenton; West Minister Academy; Walther College (St. Louis); William Woods College (Fulton); Wentworth Military Academy; Webster Groves.

MONTANA—Anaconda.

NEBRASKA—Beatrice; Blair; Brownell Hall (Omaha); Falls City; Fairbury; Fremont; Hastings; Hastings Academy; Holdrege; Kearney; Lincoln; Lincoln Academy; Nebraska City; Nebraska Military Academy; Nebraska Wesleyan Academy; Norfolk; North Platte; Omaha; Pawnee City; Seward; South Omaha; Superior; Tecumseh; York.

NORTH DAKOTA—Devils Lake; Fargo; Grafton; Grand Forks; Jamestown.

OKLAHOMA—Muskogee; Oklahoma City.

SOUTH DAKOTA—Aberdeen; All Saints (Sioux Falls); Brookings; Canton; Deadwood; Huron; Lead; Mitchell; Pierre; Rapid City; Sioux Falls; Vermillion; Watertown; Webster; Yankton.

WISCONSIN—Antigo, Appleton; Ashland; Baraboo; Beaver Dam; Wayland Academy (Beaver Dam); Beloit; Beloit Academy; Chippewa Falls; Columbus; Delavan; Eau Claire; Elkhorn; Evansville; Fond du Lac; Fort Atkinson; Grand Rapids; Green Bay (East); Hartford; Hudson; Janesville; Kaukauna; Kenosha La Crosse; Lancaster; Madison; Madison—(Wisconsin Academy); Manitowoc—North, West; Marinette; Marshfield; Menomonie; Merrill; Milwaukee—East, North, South, West; Milwaukee-Downer Seminary; Monroe; Neenah; Neillsville; New Richmond; Oconomowoc; Oconto; Oskosh; Platteville; Plymouth; Racine; Racine College Grammar School; Reedsburg; Rhinelander; Ripon; River Falls; Sheboygan; Sinsinawa St. Clara Academy; South Wilwaukee; Sparta; Stevens Point; Stoughton; Sturgeon Bay; Superior—Blaine, Nelson Dewey; Tomah; Viroqua; Washburn; Waukesha; Carroll College Academy (Waukesha); Waupaca; Wausau; Wauwatosa; Whitewater.

WYOMING—Cheyenne.

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE

The College of Agriculture and Domestic Science offers eight distinct courses of study:

1. A four-year course in Agriculture.
2. A four-year course in Horticulture.
3. A four-year course in Forestry.
4. A two-year course in Agriculture.
5. A two-year course in Horticulture.
6. A special course in Dairying.
7. A ten-weeks winter course in Agriculture.
8. A four-year course in Domestic Science.

The four-year courses of this College are regular collegiate courses of the University and lead to the degrees of Bachelor of Science in Agriculture, Bachelor of Science in Horticulture, Bachelor of Science in Forestry, and Bachelor of Science in Domestic Science. The requirements for admission to these courses are given in the following pages.

The short courses are for students who are not so well prepared and are unable to spend four years in the University. It has been found that one year of the short course often prepares a student for the four-year course, and that a large proportion of those who enter the short courses find time and means to continue one of the four-year courses.

FACULTY AND INSTRUCTORS

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University.

HOMER CHARLES PRICE, M. S. A., DEAN, Professor of Rural Economics and Manager of University Farm.

ALFRED VIVIAN, Ph. G., SECRETARY, Professor of Agricultural Chemistry.

WILLIAM RANE LAZENBY, M. Agr., Professor of Forestry.

HENRY ADAM WEBER, Ph. D., Professor of Agricultural Chemistry.

*GEORGE WELLS KNIGHT, Ph, D., Professor of American History and Political Science.

ALBERT MARTIN BLEILE, M. D., Professor of Anatomy and Physiology.

JOSEPH VILLIERS DENNEY, B. A., Professor of English.

WILLIAM MCPHERSON, Ph. D., Professor of Chemistry.

DAVID STUART WHITE, D. V. M., Professor of Veterinary Medicine.

HERBERT OSBORN, M. Sc., Professor of Zoology and Entomology.

FRANK EDWIN SANBORN, S. B., Professor of Industrial Arts.

JOHN ADAMS BOWNOCKER, D. Sc., Professor of Inorganic Geology.

CHARLES SUMNER PLUMB, B. Sc., Professor of Animal Husbandry.

SEPTIMUS SISSON, B. Sc., V. S., Professor of Comparative Anatomy.

CHARLES BRADFIELD MORREY, B. A., M. D., Professor of Bacteriology.

JAMES EDWARD HAGERTY, Ph. D., Professor of Economics and Sociology.

THOMAS EWING FRENCH, M. E., Professor of Engineering Drawing.

ARTHUR GILLETT MCCALL, B. Sc. (Agr.), Professor of Agronomy.

OSCAR ERF, B. Sc. (Agr), Professor of Dairying.

FREDERICK RUPERT MARSHALL, B. S. A., Professor of Animal Husbandry.

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* Absent on leave 1908-1909.

RUTH AIMEE WARDALL, M. A., Professor of Domestic Science.

CHARLES A. BRUCE, B. A., Professor of the Romance Languages and Literatures.

FRANCIS LEROY LANDACRE, B. A., Professor of Zoology and Entomology.

JOHN H. SCHAFFNER, M. A., M. S., Associate Professor of Botany.

JAMES STEWART HINE, B. Sc., Associate Professor of Zoology and Entomology.

V. M. SHOESMITH, B. Sc., Associate Professor of Agronomy.

EDGAR S. INGRAHAM, Ph. D., Associate Professor of Romance Languages and Literatures.

CHARLES LINCOLN ARNOLD, M. Sc., Associate Professor of Mathematics.

ANNA K. FLINT, B. S., Associate Professor of Domestic Science.

EDNA N. WHITE, B. A., Associate Professor of Domestic Art.

VERNON HAYES DAVIS, M. S. A., Assistant Professor of Horticulture.

ROBERT F. EARHART, Ph. D., Assistant Professor of Physics.

JOHN B. PRESTON, M. A., Assistant Professor of Mathematics.

GRACE M. BAREIS, B. A., Assistant Professor of Mathematics.

MAY THOMAS, Ph. D., Assistant Professor of the Germanic Languages and Literatures.

ALFRED DACHNOWSKI, Ph. D., Assistant Professor of Botany.

ADMISSION

Applicants for admission must be at least sixteen years of age. The College is open on equal terms to both sexes.

REQUIREMENTS FOR THE FOUR-YEAR COURSES

Applicants may be admitted to the four-year course in Agriculture and to the four-year courses in Horticulture and Forestry* without examination on presentation of properly endorsed certificates from any first or second grade high school in this state, or from approved normal schools or from the State Board of School Examiners or from any school outside of the state which is recognized by the University.

REQUIREMENTS BY UNITS

A unit is the equivalent of a course of study covering a school year of not less than thirty-two weeks with four or five periods a week. To obtain full standing applicants under twenty-one years of age must have credit by examination or certificate for twelve units (and in the course of Domestic Science fifteen units) of which two shall be English, one History, two Mathematics, one Physics, and two foreign language, selected from the following list:

English ..... (Foreign students may substitute their native language for the English requirement)	3 units
American History or American History and Civil Government	1 unit
Ancient History (Greek and Roman and Mediæval History to 814 A. D).....	1 unit

*It is the intention of the University to have all the first and second grade high schools in the state inspected as rapidly as possible, with the idea of preparing a list of schools recognized for these courses. For the present, however, all first and second grade schools will be recognized for the courses in Agriculture, Horticulture, and Forestry.

Mediæval and Modern History (from 814 A. D. to the present)	1 unit
(For the present General History may be counted as a unit but not in addition to Ancient or Mediæval and Modern History)	
English History	1 unit
Algebra (through quadratics)	1 unit
Algebra (beyond quadratics)	½ unit
Geometry (plane)	1 unit
Geometry (solid)	½ unit
Trigonometry	½ unit
Latin	2, 3, or 4 units
Greek	2, 3, or 4 units
German	2, 3, or 4 units
French	2, 3, or 4 units
Spanish	2, 3, or 4 units
(Not less than two units of any language will be accepted)	
Physics	1 unit
Chemistry	1 unit
Physical Geography	1 unit
Zoology	1 unit
Botany	1 unit

Physical Geography Zoology Botany Physiology	For the present any two of these may be counted together as..... 1 unit
Agriculture Freehand Drawing Manual Training Domestic Science	The Entrance Board may, after investigating each claim, grant a total credit of not to exceed 2 units

Preparation in excess of the requirement in any subject will not be credited unless it amounts to one-half unit. For a detailed statement of the extent and character of the work required in each subject mentioned above see page 112.

No student under twenty-one years of age will be admitted to College if he is conditioned in more than two units. All en-

trance conditions must be removed within two years after admission.

REQUIREMENTS FOR SHORT COURSES

No examinations will be required for the two-year courses in Agriculture or Horticulture, but the applicant must be at least seventeen years of age and must satisfy the Entrance Board that he has had practical experience in agriculture or horticulture.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work in this college and do not desire to become candidates for degrees, will be admitted on the conditions stated on page page 110.

ADMISSION TO ADVANCED STANDING

For admission to advanced standing in this college see requirements as stated on page 109.

ADMISSION TO GRADUATE WORK

Graduates of this College or of other institutions of approved standing may take graduate work in any of the departments of this College. Such students shall elect a major and minor subject and submit to the Graduate Committee of this College an outline of their course of study with the approval of the heads of the departments in which the work is to be taken. Upon the completion of one year's residence, which is devoted wholly to the completion of the course of study approved by the Graduate Committee, and the presentation of an acceptable thesis upon some subject

connected with the major elective, the degree of Master of Science in Agriculture will be conferred.

COURSE IN AGRICULTURE

Degree—Bachelor of Science in Agriculture.

NOTE.—The figure in parenthesis following the name of each subject indicates the number of that subject in its department, the other figure the number of credit hours. For full description of the courses, see corresponding numbers under the departments of instruction.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (7 or 44) Inorganic.	4.	Chemistry (7 or 44) Inorganic.	4.	Chemistry (12) Qualitative.	4.
				Chemistry (42) Organic.	3.
Zoology (1) Invertebrate.	3.	Zoology (1) Invertebrate.	3.	Zoology (1) Vertebrate.	3.
English (1) Paragraph Writing.	2.	English (2) Expository Writing.	2.	English (3) Brief Making.	2.
An. Husbandry (23) Cattle and Sheep.	4.	An. Husbandry (24) Horses and Swine.	4.	An. Husbandry (4) Breeds of Live Stock.	4.
Drawing (10)	3.	Shopwork (2)	3.	Shopwork (1)	3.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Agronomy (2) Farm Equipment.	4.	An. Husbandry (6) Principles of Breeding.	4.	Agronomy (22) Crops.	4.
Agr. Chem. (13)	5.	Agr. Chem. (13)	5.	Agr. Chem. (13)	5.
Botany (6)	4.	Botany (7)	4.	Botany (8)	4.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Zoology (4) Entomology.	3.	Zoology (4) Entomology.	3.	Zoology (4) Entomology.	3.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.

THIRD YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Geology (2) General.	5.	Geology (5) Applied.	4.	Agronomy (12) Soils.	4.
Dairying (12)	4.	Horticulture (6)	4.	Horticulture (3)	4.
Modern Language French, German, or Spanish.	4.	Modern Language French, German, or Spanish.	4.	Modern Language French, German, or Spanish.	4.
		Meteorology (1)	2.		

And one of the following:

An. Husbandry (2) Breeds of Live Stock.	4.	An. Husbandry (8) Feeding.	4.	An. Husbandry (26) Dairy Cattle.	4.
Vet. Medicine (28)	4.	Vet. Medicine (29)	4.	Vet. Medicine (30)	4.
Horticulture (11)	4.	Dairying (24)	4.	Dairying (26)	4.
Zoology (9) Entomology.	4.	Zoology (10) Entomology.	4.	Zoology (11) Entomology.	4.
Bacteriology (5)	4.	Bacteriology (8 or 9)	4.	Bacteriology (8 or 9)	4.
Agr. Chemistry (*)	4.	Agr. Chemistry (*)	4.	Agr. Chemistry (*)	4.
Botany (*)	4.	Botany (*)	4.	Botany (*)	4.

FOURTH YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Am. History (1) or Economics (33)	3.	Am. History (1) or Economics (33)	3.	Am. History (1) or Economics (33)	3.
Rural Econom. (2) Farm Management.	4.	Rural Econom. (4) History of Agriculture.	4.	Rural Econom. (6) Agricultural Economics.	4.

ELECTIVE

Ten hours a week throughout the year from any of the courses given in any of the colleges of the University upon which the student is qualified to enter, except the College of Law. Two hours a week of this elective work may be devoted to a thesis, subject to the consent of the instructor under whom the thesis is to be written.

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*Students electing Agricultural Chemistry or Botany in their junior year should consult the department interested regarding the same before being registered.

OUTLINE OF FOUR-YEAR COURSE IN HORTICULTURE

Degree—Bachelor of Science in Horticulture.

NOTE.—The figure in parenthesis following the name of each subject indicates the number of that subject in its department; the other figure the number of credit hours. For full description of courses, see corresponding number under the departments of instruction.

FIRST YEAR.

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (7 or 44) Inorganic.	4.	Chemistry (7 or 44) Inorganic.	4.	Chemistry (12) Qualitative.	4.
				Chemistry (42) Organic.	2.
Zoology (1) Invertebrate.	3.	Zoology (1) Invertebrate.	3.	Zoology (1) Vertebrate.	3.
English (1) Paragraph Writing.	2.	English (2) Expository Writing.	2.	English (3) Brief Making.	2.
Horticulture (21) Principles.	4.	Horticulture (21) Principles.	4.	Horticulture (21) Principles.	4.
Drawing (10)	3.	Shopwork (2)	3.	Shopwork (1)	3.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Horticulture (22) Pomology.	4.	Horticulture (22) Pomology.	4.	Horticulture (22) Pomology.	4.
Agr. Chem. (13)	5.	Agr. Chem. (13)	5.	Agr. Chem. (13)	5.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Zoology (4) Economic.	3.	Zoology (4) Economic.	3.	Zoology (4) Economic.	3.
Botany (6)	4.	Botany (7)	4.	Botany (8)	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.

THIRD YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Horticulture (24) Olericulture.	4.	Horticulture (24) Olericulture.	4.	Horticulture (24) Olericulture.	4.
French (1)		French (1)		French (1)	
German (1) or	4.	German (1) or	4.	German (1) or	4.
Spanish (1)		Spanish (1)		Spanish (1)	
Agronomy (2) Farm Equipment.	4.	Geology (5) Applied.	4.	Agronomy (22) Crops.	4.
Geology (2) General.	5.	Horticulture (18) Apiculture.	3.	Zoology (3) Economic.	3.
				Agronomy (12)	4.

FOURTH YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Horticulture (8) Ornamental Plants.	2.	Horticulture (9) or Window Gardening and Floriculture	2.	Horticulture (10) or Home Gardening.	2.
		Horticulture (17) Plant Variation.	2.	Horticulture (15) Landscape Gardening.	3.
*Horticulture (11) Elements of Forestry.	5.	*Horticulture (12) Forest Technology and Timber Physics.	5.	*Horticulture (13) Forest Economics.	5.
Am. History (1) or Political.		Am. History (1) or Political.		Am. History (1) or U. S. Political.	
Economics (33) Political.	3.	Economics (33) Political.	3.	Economics (33) Political.	3.

ELECTIVE

Seven hours a week through the year, chosen from any of the courses given in any college of the University upon which the student is qualified to enter, except the College of Law, two hours a week of which may be devoted to thesis, subject to the approval of the department in which the thesis is to be written.

OUTLINE OF FOUR-YEAR COURSE IN FORESTRY

Degree—Bachelor of Science in Forestry.

NOTE.—The figure in parenthesis following the name of each subject indicates the number of that subject in its department; the other figure the number of credit hours. For full description of courses, see corresponding number under the departments of instruction.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (7 or 44)	4.	Chemistry (7 or 44)	4.	Chemistry (12)	4.
Mathematics (31)	5.	Mathematics (32)	5.	Chemistry (42)	2.
French (1)		French (1)		French (1)	
German (1) or	4.	German (1) or	4.	German (1) or	4.
Spanish (1)		Spanish (1)		Spanish (1)	
English (1)	2.	English (2)	2.	English (3)	2.
Eng. Drawing (1)	2.	Eng. Drawing (2)	2.	Forestry (2) Elementary.	2.
Forestry (1) Elementary.	1.			Botany (9) Dendrology.	2.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

*These are courses of the Department of Horticulture and Forestry, which has been abolished. They will not be given after the year 1909-1910.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Botany (6)	4.	Botany (7)	4.	Botany (8)	4.
Zoology (4) Entomology.	3.	Zoology (4) Entomology.	3.	Zoology (4) Entomology.	3.
French (2)		French (2)		French (2)	
German (4) or Spanish (2)	4.	German (4) or Spanish (2)	4.	German (4) or Spanish (2)	4.
Civil Eng. (30) Surveying.	5.	Civil Eng. (4) Top. Draw.	4.	Forestry (3) Arboriculture.	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.

THIRD YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Forestry (4) Silviculture.	3.	Forestry (5) Silviculture.	3.	Forestry (6) Silviculture.	3.
Botany (17)	4.	Botany (17)	4.	Botany (17)	4.
Geology (2)	5.	Geology (5)	4.	Agronomy (12)	4.

Not less than five hours throughout the year from the following:

Physics (11)	3.	Physics (11)	3.	Physics (11)	3.
Agr. Chem. (13)	5.	Agr. Chem. (13)	5.	Agr. Chem. (13)	5.
Bacteriology (5)	4.	Bacteriology (9)	4.	Bacteriology (9)	4.
Zoology (9)	3.	Zoology (10)	3.	Zoology (11)	3.
Eng. Drawing (45)	2.	Eng. Drawing (46)	2.	Eng. Drawing (47)	2.
Horticulture (8)	2.	Horticulture (18)	3.	Horticulture (3)	4.
Economics (33)	3.	Economics (33)	3.	Economics (33)	3.
Agronomy (16)	3.			Horticulture (15)	3.

FOURTH YEAR.

FIRST TERM		SECOND TERM		THIRD TERM	
Forestry (7) Mensuration.	4.	Forestry (8) Timber Physics.	4.	Forestry (9) Utilization.	4.
Forestry (10) Management.	4.	Forestry (11) Economics.	4.	Forestry (12) Policies.	4.
Botany (24) Physiological Ecology.	4.	Botany (24) Physiological Ecology.	2.	Botany (24) Physiological Ecology.	4.

Not less than five hours throughout the year from any course upon which the student is qualified to enter.

TWO-YEAR COURSE IN AGRICULTURE

NOTE.—The figure in parenthesis following the name of each subject indicates the number of that subject in its department; the other figure the number of credit hours. For full description of courses, see corresponding number under the departments of instruction.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
An. Husbandry (1)	4.	An. Husbandry (1)	4.	An. Husbandry (1)	4.
Horticulture (1) Elementary.	4.	Horticulture (1)	4.	Horticulture (1)	4.
Drawing (10)	3.	Shopwork (1)	3.	Shopwork (2)	3.
Chemistry (3) Elementary.	4.	Chemistry (3) Elementary.	4.	Chemistry (45) or Qualitative Analysis.	
				Agr. Chem. (16) Soil Fertility.	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR.

FIRST TERM		SECOND TERM		THIRD TERM	
Agronomy (2) Farm Equipment.	4.	Agronomy (11) Soils.	4.	Agronomy (22) Crops.	4.
Dairying (12) Elementary.	4.	Dairying (24) Dairy Equipment.	4.	Dairying (26) Farm Dairying.	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.

And two subjects each term chosen from the following:

Vet. Medicine (28)	4.	Vet. Medicine (29)	4.	Vet. Medicine (30)	4.
An. Husbandry (25) Dairy Cattle.	4.	An. Husbandry (3) Stock Feeding.	4.	An. Husbandry (5) Stock Breeding.	4.
Horticulture (19) Pomology.	4.	Horticulture (19) Pomology.	4.	Horticulture (19) Pomology.	4.
Zoology (7) Entomology.	4.	Zoology (7) Entomology.	4.	Zoology (7) Entomology.	4.
Physiology (2)	3.	Bacteriology (2)	3.	Rural Econom. (1)	4.
Mathematics (1) Algebra.	5.	Mathematics (3a) Geometry.	5.	Botany (1) Elementary.	4.
Physics (1)	5.	Physics (1)	5.	Geology (1) Physical Geography.	5.

TWO-YEAR COURSE IN HORTICULTURE

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Horticulture (1)	4.	Horticulture (1)	4.	Horticulture (1)	4.
Zoology (7) Entomology.	4.	Zoology (7) Entomology.	4.	Zoology (7) Entomology.	4.
Drawing (10)	3.	Shopwork (2)	3.	Shopwork (1)	3.
Chemistry (3) Elementary.	4.	Chemistry (3) Elementary.	4.	Chemistry (45) or Qualitative Analysis.	
				Agr. Chem. (16) Soil Fertility.	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Horticulture (19) Pomology.	4.	Horticulture (19) Pomology.	4.	Horticulture (19) Pomology.	4.
Agronomy (2) Equipment.	4.	Agronomy (11) Soils.	4.	Agronomy (22) Crops.	4.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.

Not less than seven hours from the following:

Horticulture (11) Elements of Forestry.	5.	Horticulture (18) Apiculture.	3.	Horticulture (15) Landscape Gardening.	3.
Horticulture (8) Floriculture.	2.	Horticulture (2)	4.	Horticulture (14) Vegetable Gardening.	4.
Mathematics (1) Algebra.	5.	Mathematics (3a) Geometry.	5.	Rural Econom. (1) Farm Management.	4.
Physics (1)	5.	Physics (1)	5.	Geology (1) Physical Geography.	5.
Physiology (2)	3.	Bacteriology (2)	3.	Botany (1) Elementary.	5.

WINTER COURSES

WINTER COURSE IN DAIRYING—THE OHIO DAIRY SCHOOL

This course in Dairying is established to meet the wants of those who have neither the time nor means for more extended courses. It is designed especially for those who are desirous of mastering the art of butter and cheese making or who wish to become fitted for the position of manager or superintendent of a creamery or cheese factory. In this course the greater part of the time is given to the

laboratory or dairy room practice. This consists in the testing of milk as to purity and content of butter fat; the use and care of centrifugal separators and other dairy devices; the making of butter and cheese by the most improved methods; in short, all the essential operations of the creamery, factory, and home dairy management are repeatedly performed under the guidance and direction of competent instructors. A special bulletin describing this course will be mailed upon application to any one interested.

WINTER COURSE IN AGRICULTURE

The ten weeks Winter Course in Agriculture has been established to meet the demands of those Ohio farmers who are unable to avail themselves of the other courses in agriculture offered by the University. There is a large number of young men located on the farms of our state who are so situated that it is impossible for them to be absent from their homes during the nine months of the college year, but yet desire some training in the principles of agriculture. On other farms are found mature men, who are past the usual school age but are ambitious to become familiar with the most recent agricultural throught and practices.

This course offers to such men an opportunity to become familiar with the results of the latest investigation in agriculture and to study the theories resulting from his research and their practical application to work on the farm.

Those interested are invited to write for the special announcement describing this course.

OUTLINE OF COURSE IN DOMESTIC SCIENCE

Degree—Bachelor of Science in Domestic Science.

NOTE.—The figure in parenthesis following the name of each subject indicates the number of that subject in its department; the other figure the number of credit hours. For full description of course see corresponding numbers under the departments of instruction.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (7 or 44) Inorganic.	4.	Chemistry (7 or 44) Inorganic.	4.	Chemistry (12) Qualitative Analysis.	4.
Art (10)	2.	Art (11)	2.	Art (12)	2.
English (1) Paragraph Writing.	2.	English (2) Expository Writing.	2.	English (3) Brief Making.	2.
Zoology (1) Invertebrate.	3.	Zoology (1) Invertebrate.	3.	Zoology (1) Vertebrate.	3.
French (1) or		French (1) or		French (1) or	
German (1)	4.	German (1)	4.	German (1)	4.
Domestic Art (1) Hand Craft.	2.	Domestic Art (2) Textiles.	2.	Domestic Art (3) Textiles.	2.
Hygiene and Physical Training	1.	Hygiene and Physical Training	1.	Hygiene and Physical Training	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (34) Organic.	5.	Ag. Chem. (14)	5.	Ag. Chem. (14)	5.
Dom. Science (1) Foods.	3.	Dom. Science (2) Foods.	3.	Dom. Science (3) Foods.	3.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
French (2) or		French (2) or		French (2) or	
German (4)	4.	German (4)	4.	German (4)	4.
Eng. Drawing (20)	1.	Eng.Drawing(15)	1½.	Eng.Drawing(15)	1½.
Hygiene and Physical Training.	1.	Hygiene and Physical Training.	1.	Hygiene and Physical Training.	1.

THIRD YEAR.

FIRST TERM		SECOND TERM		THIRD TERM	
Economics (33)	3.	Economics (33)	3.	Economics (33)	3.
Botany (13)	3.	Botany (13)	3.	Botany (13)	3.

ELECTIVES

Not less than nine hours throughout the year chosen from the following electives, including either Group A or B, or both.

GROUP A.

Bacteriology (5)	4.	Bacteriology (7)	4.	Dom. Science (10)	3.
Agr. Chem. (21)	3.	Dom. Science (4)	4.	Dom. Science (11)	3.

GROUP B.

Art (13)	2.	Art (14)	2.	Art (15)	2.
Domestic Art (4)	3.	Domestic Art (5)	3.	Domestic Art (8)	3.

OTHER ELECTIVES

English (8)	3.	English (8)	3.	English (8)	3.
Architecture (9)	3.	Architecture (10)	3.	Architecture (11)	3.
Psychology (1)	3.	Psychology (1)	3.	Psychology (1)	3.
				Physiology (3)	3.
				Bacteriology (7)	4.

FOURTH YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Sociology (1)	3.	Sociology (1)	3.	Sociology (1)	3.

Not less than twelve hours, which must include either Group A or B. Both may be taken.

GROUP A

Dom. Science (13)	2-5	Dom. Science (13)	2-5	Dom. Science (13)	2-5

GROUP B

Philosophy (115) (Esthetics.)	2.	Philosophy (115) (Esthetics.)	2.	Philosophy (115) (Esthetics.)	2.
Drawing (17)	2.	Drawing (40)	2.	Drawing (41)	2.

SUGGESTIVE ELECTIVES

Agr. Chem. (18 or 21)	3-5.	Agr. Chem. (18 or 21)	3-5.	Agr. Chem. (18 or 21)	3-5.
Amer. History (1)	3.	Amer. History (1)	3.	Amer. History (1)	3.
Dom. Science (12)	3.	Domestic Art (6)	3.	Germ. Literature	3.
Bacteriology (5)	3-5.	Bacteriology (7)	3-5.	Bacteriology (7)	3-5.
				Dom. Science (10)	3.
		Dom. Science (4)	4.	Dom. Science (11)	3.
Art (13)	2.	Art (14)	2.	Art (15)	2.
Domestic Art (4)	3.	Domestic Art (5)	3.	Domestic Art (7)	3.
Philosophy (103) Ethics.	2.	Philosophy (103) Ethics.	2.	Philosophy (103) Ethics.	2.
Physiology	9 or 11.	Physiology	9 or 11.	Physiology	9 or 11.
Botany*		Botany*		Botany*	
Bacteriology	6 or 15.	Bacteriology	6 or 15.	Bacteriology	6 or 15.
Zoology		Zoology		Zoology	

COLLEGE OF ARTS PHILOSOPHY AND SCIENCE

ORGANIZATION

The College of Arts, Philosophy, and Science comprises:

The Undergraduate Courses.

The Graduate School.

The Lake Laboratory.

In connection with the College of Law the combined Arts-Law Course.

FACULTY AND INSTRUCTORS

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University.

JOSEPH VILLIERS DENNEY, B. A., DEAN and Professor of English.

CHARLES A. BRUCE, B. A., SECRETARY and Professor of Romance Languages and Literatures.

WILLIAM HENRY SCOTT, LL. D., Professor of Philosophy.

SAMUEL CARROLL DERBY, A. M., Professor of the Latin Language and Literature.

JOSIAH RENICK SMITH, A. M., Professor of the Greek Language and Literature.

BENJAMIN FRANKLIN THOMAS, Ph. D., Professor of Physics.

*GEORGE WELLS KNIGHT, Ph. D., Professor of American History and Political Science.

ROSSER DANIEL BOHANNAN, B. Sc., C. E., E. M., Professor of Mathematics.

ALBERT MARTIN BLEILE, M. D., Professor of Anatomy and Physiology.

*Absent on leave 1908-1909.

BENJAMIN LESTER BOWEN, Ph. D., Professor of Romance Languages and Literatures.

WILLIAM MCPHERSON, D. Sc., Ph. D., Professor of Chemistry.

HERBERT OSBORN, M. Sc., Professor of Zoology and Entomology, and Director of the Lake Laboratory.

HENRY CURWEN LORD, B. Sc., F. R. A. S., Professor of Astronomy, and Director of the Emerson McMillin Observatory.

CHARLES SMITH PROSSER, D. Sc., Ph. D., Professor of Geology.

JOHN ADAMS BOWNOCKER, D. Sc., Professor of Inorganic Geology, and Curator of the Museum.

ALFRED DODGE COLE, M. A., Professor of Physics.

WILBUR HENRY SIEBERT, M. A., Professor of European History.

LEWIS ADDISON RHOADES, Ph. D., Professor of Germanic Languages and Literatures.

DAVID R. MAJOR, Ph. D., Professor of Psychology.

CHARLES BRADFIELD MORREY, B. A., M. D., Professor of Bacteriology.

JAMES EDWARD HAGERTY, Ph. D., Professor of Economics and Sociology.

HENRY RUSSELL SPENCER, Ph. D., Professor of American History and Political Science.

GEORGE WASHINGTON MCCOARD, M. A., Professor of Mathematics.

ARTHUR WINFRED HODGMAN, Ph. D., Professor of the Classical Languages and Literatures.

WILLIAM EDWARDS HENDERSON, Ph. D., Professor of Inorganic and Physical Chemistry.

JOSEPH RUSSELL TAYLOR, M. A., Professor of English.

CHARLES WILLIAM FOULK, B. A., Professor of Analytical Chemistry.

THOMAS HARVEY HAINES, Ph. D., Professor of Psychology.

FRANCIS LEROY LANDACRE, B. A., Professor of Zoology and Entomology.

WALLACE STEDMAN ELDEN, Ph. D., Professor of the Classical Languages.

MATTHEW BROWN HAMMOND, Ph. D., Professor of Economics and Sociology.

HARRY WALDO KUHN, Ph. D., Professor of Mathematics.

GEORGE H. MCKNIGHT, Ph. D., Professor of English.

KARL DALE SWARTZEL, M. Sc., Professor of Mathematics.

ARTHUR ERNEST DAVIES, Ph. D., Professor of Philosophy.

JOHN H. SCHAFFNER, M. A., M. S., Associate Professor of Botany.

JAMES STEWART HINE, B. Sc., Associate Professor of Zoology and Entomology.

FREDERICK EDWARD KESTER, Ph. D., Associate Professor of Physics.

WILLIAM LUCIUS GRAVES, M. A., Associate Professor of English.

EDGAR S. INGRAHAM, Ph. D., Associate Professor of Romance Languages.

WILLIAM LLOYD EVANS, Ph. D., Associate Professor of Chemistry.

BERTHOLD AUGUST EISENLOHR, M. A., Associate Professor of the Germanic Languages and Literatures.

EUGENE FRANKLIN MCCAMPBELL, B. S., Associate Professor of Bacteriology.

EDGAR HOLMES MCNEAL, Ph. D., Assistant Professor of European History.

FAYETTE AVERY MCKENZIE, Ph. D., Assistant Professor of Economics and Sociology.

CARSON SAMUEL DUNCAN, M. A., Assistant Professor of English.

WALTER THOMPSON PEIRCE, Ph. D., Assistant Professor of Romance Languages.

JOHN B. PRESTON, M. A., Assistant Professor of Mathematics.

ROBERT F. GRIGGS, M. A., Assistant Professor of Botany.

JAMES RENWICK WITHROW, Ph. D., Assistant Professor of Chemistry.

FREDERIC C. BLAKE, Ph. D., Assistant Professor of Physics.

EDMUND SEWALL MANSON, JR., S. M., Assistant Professor of Astronomy.

RAYMOND JESSE SEYMOUR, M. S., M. D., Assistant Professor of Anatomy and Physiology.

OLIVER CARY LOCKHART, M. A., Assistant Professor of Economics and Sociology.

WALTER LARABEE LEIGHTON, Ph. D., Assistant Professor of English.

ARCHIBALD MOWBRAY BURNHAM, M. Ph., Assistant Professor of English.

LOUIS ALBION COOPER, B. A., Assistant Professor of English.

CHARLES E. BLANCHARD, LL. B., Assistant Professor of English.

EDWIN PLATT TANNER, Ph. D., Assistant Professor of American History and Political Science.

EXECUTIVE COMMITTEE

THE DEAN, *ex officio;* THE SECRETARY, *ex officio;* PROFESSOR BLEILE, PROFESSOR COLE, PROFESSOR BRUCE, and PROFESSOR HAINES.

ADMISSION

Applicants for admission must be at least sixteen years of age. The College is open on equal terms to both sexes.

REQUIREMENTS BY UNITS

A unit is the equivalent of a course of study covering a school year of not less than thirty-six weeks, with five periods of at least forty-five minutes each per week. To obtain full standing, applicants under twenty-one years of age must have credit by examination or certificate for fifteen units—of which three shall be English, one history, two mathematics, one physics or chemistry, and four language other than English—selected from the following list:

English ..... 3 units
(Foreign students may substitute their native language for the English requirement.)

American History or American History and Civil Government ..... 1 unit
Ancient History (Greek and Roman) and Mediæval History to 814 A. D..... 1 unit
Mediæval and Modern History (from 814 A. D. to the present)..... 1 unit
(For the present General History may be counted as a unit, but not in addition to Ancient or Mediæval and Modern History.)
English History ..... 1 unit

Algebra (through quadratics)..... 1 unit
Algebra (beyond quadratics)..... ½ unit
Geometry (plane)..... 1 unit
Geometry (solid)..... ½ unit
Trigonometry ..... ½ unit

Latin ..... 2, 3, or 4 units
Greek ..... 2, 3, or 4 units
German ..... 2, 3, or 4 units
French ..... 2, 3, or 4 units
Spanish ..... 2, 3, or 4 units
(Not less than two units of any language will be accepted.)

Physics	1 unit
Chemistry	1 unit
Physical Geography	1 unit
Zoology	1 unit
Botany	1 unit

Physiology Physical Geography Zoology Botany	For the present any two of these may be counted together as..... 1 unit
Agriculture Free-hand Drawing Manual Training Domestic Science	The Entrance Board may, after investigating each claim, grant a total credit of not to exceed.. 2 units

Preparation in excess of the requirements in any subject will not be credited unless it amounts to one-half unit.

No student under twenty-one years of age will be admitted to college if he is conditioned in more than two of the fifteen units. All entrance conditions must be removed within two years after admission.

Students over twenty-one years of age are admitted in accordance with the provisions stated under "Admission to Special Studies," page 110.

The extent and character of the work required in each subject mentioned above is indicated on p. 112 and following.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work in this College will be admitted on the conditions stated on page 110.

ADMISSION TO ADVANCED STANDING

For admission to advanced standing in this college see requirements as stated on page 109.

ADMISSION TO GRADUATE SCHOOL

For admission to graduate school see statement as found on page 111.

REQUIREMENTS FOR GRADUATION

UNDERGRADUATE COURSES OF STUDY

The work of the College of Arts, Philosophy, and Science is organized on the group-elective system. Several of the groups correspond in their chief studies and learning aims to the "courses"* formerly offered, but with much greater flexibility and much freer opportunities for election. Many other "courses" having equally specific aims are also provided in the groups. The groups, so far as at present arranged, number twelve. This number will be increased as reasonable demand may arise for new groups. The characteristic features of each group may be judged from its name, which is made up of the names of the chief studies of the group. The groups at present recommended are given on pages 165 to 167.

About one-third of every student's curriculum is prescribed. Each student is required to lay sufficiently broad foundations, during the first two years, in English, in two other languages to be chosen by himself, in mathematics and one science, or in two sciences to be chosen by himself, and in history, economics, English, or philosophy. The remaining two-thirds of each student's work is elective; but in order to insure substantial results in the studies thus freely chosen, the student is required to continue two of his first-year studies (any two) through the second year, one of his second-year studies (any one) through the third year, and one of his third-year studies (any one) through the fourth year. In order to guard against the danger of too narrow or too wide a range of work, a maximum and a minimum number of departments is fixed in which the student is allowed to work during any one year. In the

*Arts or Classical, Latin Philosophy, Modern Language Philosophy, English Philosophy, General Science, Commerce and Administration, Education, Preparatory to Law, Preparatory to Medicine, Preparatory to Journalism.

first and second years the number of departments thus fixed is four or five; in the third and fourth years the number is three or four.

SUMMARY AND REQUIREMENTS

On satisfactory completion of 180 term hours under the restrictions prescribed below, the student will be recommended for the Degree of Bachelor of Arts.

The 180 term hours must include the following, amounting to 57 term hours:

(a) English 1, 2, and 3. (2-2-2) 6 term hours.

(b) Two of the following languages: (8-8-8) 24 term hours.
Greek 1 or 7, 8, 9; Latin 1, 2, 3;
French 1 or 2; German 1 or 4; Spanish 1 or 2.

(c) Mathematics 31, 32, 33, and 24. (6-6-6) 18 term hours, or
Two of the following: at least (6-6-6) 18 term hours.
Mathematics 21, 22, 23; Physics 11 or 2;
Chemistry 7 or 44 and 12; Botany 21; Zoology 31.
Geology 17; Physiology 1; Astronomy 1.

(d) One of the following: (3-3-3) 9 term hours.
European History 1, 2, 3 or 14; American History 1;
Political Science 1; Economics 30, 31, and 32;
Psychology 1 and Psychology 1a; Philosophy 100 and 101; English 8.

For the remaining 123 term hours required for graduation the student may elect from any courses announced for

students for this College in the "Departments of Instruction" (see page 260, et seq.) as follows:

*Agricultural Chemistry—18.
American History and Political Science—All courses except 11.
Anatomy and Physiology—Courses 1, 3, 4, 5, 9, 11, 14.
*Architecture—33, 36.
*Art—4 to 40.
Astronomy—All courses.
Bacteriology—5, 6, 7, 10, 12, 15.
Botany—9, 11, 15, 17, 20, 21, 24, 25, 26, 27, 28, 29, 30, 31, 32, 35, 36.
Chemistry—7, 12, 15, 17, 20, 21, 25, 26, 27, 28, 29, 30, 32, 35, 37, 40, 41, 44, 71, 72, 73 74, 75, 76.
*Civil Engineering—21.
*Domestic Science—1, 2, 3, 10; or Domestic Art, 1, 2, 3.
Economics and Sociology—All courses.
*Electrical Engineering—6, 7, 8, 9, 11, 15, 16, 17.
*Engineering Drawing—1, 2, 3, 15, 20, 24, 33, 34, 35, 45, 46, 47.
English—All courses except 48.
European History—All courses except 13.
Geology—6, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21.
German—All courses, except 31, 32, 33.
Greek—All courses.
Latin—All courses, except 18 and 19.
Mathematics—All courses from 21 to 49, except 46.
*Mechanical Engineering—34.
*Mechanics—1, 2, 3, 4.
*Metallurgy and Mineralogy—2, 3, 5.
Philosophy—All courses.
Physics—2, 3, 4, 11, 12, 13, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28.
Psychology—All courses, except 2.
Romance Languages—All courses.
Zoology and Entomology—2, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 30, 31, 33, 34.

FIRST YEAR

(a) Fifteen or sixteen hours each term, chosen from the prescribed work indicated above, including English 1, 2, 3.

*With permission of the Executive Committee.

(b) Cadet Service (men); Hygiene and Physical Training (women); required throughout the first year.

SECOND YEAR

(a) Fifteen hours each term. This must include all the prescribed work not done in the first year; the other work of the second year to be in three or four departments of which at least two shall be departments in which the student has worked during the first year.

(b) Cadet Service (men); Hygiene and Physical Training (women); required throughout the second year.

THIRD YEAR

Fifteen hours each term in three or four departments, at least one to be a department in which the student has worked during the second year.

FOURTH YEAR

Fifteen hours each term in three or four departments, at least one to be a department in which the student has worked during the third year.

EXTRA HOURS

A student who has postponed a study in group (b) from the first to the second year, may take sixteen hours in the second year, and by the permission of the Executive Committee a student who has shown exceptional proficiency may be allowed to undertake from one to three extra hours; but in no case will any student be permitted to take more than eighteen hours. No extra hours will be granted to a first-year student, or to any student with conditions outstanding.

RULE GOVERNING ELECTIONS

Each student enrolled in the College of Arts, Philosophy, and Science must file at the Registrar's office not later than June 1st of each year a complete statement of the

courses he wishes to enter the following year. Blanks for this purpose may be obtained of the Registrar.

STUDENT ADVISERS

The Faculty of Arts, Philosophy, and Science has provided a system of advisers, the chief objects of which are: (1) to assist the undergraduate in choosing studies that will result in a well-rounded course and will achieve most economically the purpose which the student has in view in his course; (2) to promote closer personal relations between student and instructor and thus to aid the student, so far as possible, in all matters connected with his university life. On entering the University each student is assigned by the Executive Committee to a temporary adviser to whom he is cordially invited to resort for counsel as often as the need arises. Before the close of the year each student chooses a permanent adviser. Each student is required to secure the signature of his adviser to his election-card in June of each year, and to petitions, at any time during the year, for a change in work or for increase or diminution of work.

FIRST-YEAR OPTIONS

In order to meet the requirements for graduation, the first-year student must arrange his work on one of the following plans:

I. English; two languages; two sciences, or mathematics and one science, or mathematics alone; deferring until the second year the selection from group (d) above.

II. English; two languages; mathematics or science; one subject from group (d); deferring until the second year a second subject from group (c) above.

III. English; one language; two sciences, or mathematics and one science, or mathematics alone; one subject from group (d); deferring until the second year the second language from group (b) above.

In order to assist the student in his choice of work for the first two years, more specific directions are given below in connection with various natural groupings of studies. *These groups are not mandatory.* The student may make other combinations than those suggested, provided his selection of studies fulfills one of the three options given above. In the second year many other combinations are possible. The time schedule, however, is arranged primarily to fit the combinations recommended. The days and hours at which each study is taught may be found by looking up that study on page 260 (et seq.) of this Bulletin. The title of a group indicates the chief studies of that group.

STUDY GROUPS

1. CLASSICAL. First year: Greek 1 or 7, 8, 9; Latin 1, 2, 3; English 1, 2, 3; either 6 hours in (c) or 3 hours in (c) and 3 hours in (d). Second year: Greek 7, 8, 9 or 10, 11, 12; Latin 4, 5, 6; begin or continue a modern language, a science and a study in Economics, History, Political Science or Sociology. Before choosing work in (3) or (d), read groups 4 to 12.

2. LATIN, MODERN LANGUAGE. First year: Latin 1, 2, 3; French 1 or 2, or German 1 or 4; English 1, 2, 3, either 6 hours in (c) or 3 hours in (c) and 3 hours in (d). Second year: Latin 4, 5, 6; French or German; English; begin or continue a science and a study in Economics, History, Political Science, or Sociology. Before choosing work in (c) or (d), read groups 4 to 12.

3. MODERN LANGUAGES. First year: Begin or continue French and German. *Not more than one new language should be begun in the first year.* English 1, 2, 3; either 6 hours in (c) or 3 hours in (c) and 3 hours in (d). Second year: Continue French and German; begin or continue a science and a study in Economics, History, Political Science or Sociology; add English 8. Before choosing work in (c) or (d), read groups 4 to 12.

4. GENERAL SCIENCE. First year: French 1 or 2 or German 1 or 4; Chemistry 7 or 44; Mathematics 21, 22, 23; English 1, 2, 3,; 3 hours in (d). Second year: A second modern language; a study in Economics, English, History, Political Science or Sociology; one of the following: Astronomy, Chemistry, Physics; one of the following: Botany, Geology, Physiology, Zoology; the remaining time in

Mathematics or Science. Students intending to specialize in Chemistry should continue that subject the second year of the course. Those who have Geology in view should take Geology 17 and 11, 12, 13 in their second year.

5. MATHEMATICS, PHYSICS, ASTRONOMY. First year: Mathematics 31, 32, 33, 24; French 1 or 2 or German 1 or 4; English 1, 2, 3; 3 hours in (d). Second year: Mathematics 41, 42, 43; Physics 2; Chemistry 7 or 44; English and a second modern language (German or French). Third year: Astronomy 1; Physics 12; and either Astronomy 2 or Physics 3; an additional science (3 hours); English or History 2 or 3 hours; German or French unless each has been studied two full years. Instead of Mathematics 31, 32, 33, 24 in the first year, Chemistry 7 or 44 and Mathematics 21, 22, 23 may be chosen, and be followed by Mathematics in the second year.

6. BIOLOGICAL SCIENCES. First year: French 1 or 2, or German 1 or 4; Chemistry 7 or 44; Botany 21, 22, 23, or Zoology 31; English 1, 2, 3; 3 hours in (d). Second year: Botany; Zoology 31 or 2; Physiology 1; Geology 17 or Mathematics 21, 22, 23, or Physics 11; and a second modern language. Students preparing for medicine should take Zoology 31 in the first year and Zoology 2 and Physiology 1 in the second year.

7. ECONOMICS, HISTORY. First year: Include European History 1, 2, 3, or Economics 30, 31, 32; English 1, 2, 3; French 1 or 2, or German 1 or 4; 6 hours in (c). Second year: Include Economics 30, 31, 32, or 33; European History 1, 2, 3, or 14; American History 1, or Political Science 1; 4 hours in (b). In each of the third and fourth years include two courses in Economics and one in History, or two in History and one in Economics.

8. HISTORY, POLITICAL SCIENCE, ADMINISTRATION. First year: Include European History, 1, 2, 3, or 14, or American History 1; English 1, 2, 3; 6 hours in (b), including French 1 or 2, or German 1 or 4; 3 hours in (c). Second year: Include Political Science 1 and the course in History not taken the first year, and Economics 33; 3 hours in (c). The student who has not a reading command of French or German should continue the modern language of the first year. In each of the third and fourth years include either two courses in History and one in Political Science, or one course in History and two in Political Science; and in one of these years Economics 42, 43.

9. GENERAL BUSINESS. First year: Include Economics 30, 31, 32; English 1, 2, 3; Geology 17; Mathematics 21, 22, 23; and one of

the following: French 1 or 2; German 1 or 4, or Spanish 1 or 2. Second year: Include Economics 33; English 8; Chemistry 7 or 44, or Physics 11 or 2; American History 1, or European History 1, 2, 3; begin or continue a modern language.

10. SOCIOLOGY, PHILOSOPHY. First year: Include Economics 30, 31, 32; English 1, 2, 3; Physiology 1; Zoology 31; and French 1 or 2, or German 1 or 4. Second year: Include Economics 33; English 8; Physiology 1 and Philosophy 101; American History 1 or European History 1, 2, and 3; begin or continue a modern language.

11. PHILOSOPHY, EDUCATION. First year: Follow suggestions in Study Group 1, 2, or 3, except that only three hours be taken in (c), and that Psychology 1 and Philosophy 101 be taken as the subject in (d). Second year: Include Philosophy 103, 104; Psychology 2; begin or continue a modern language, a science in (c) and a study in Economics, History, Political Science or Sociology.

12. GENERAL LITERATURE. First year: Continue both languages offered for admission: English 1, 2, 3; 3 hours in (c); European History, 1, 2, 3. Second year: Begin or continue a modern language, a science and two courses in History, including European History 14; English 8. Take a course in Philosophy throughout the third year.

THE ARTS-LAW COURSE

A candidate for the degree of Bachelor of Arts while registered in the College of Arts, Philosophy, and Science may also register in the College of Law as a candidate for the degree of Bachelor of Laws, *provided* that at the time of seeking such registration in the College of Law (1) he has 135 term hours to his credit in the College of Arts, Philosophy, and Science, including the requisite optional subjects, and exclusive of the credit hours in Military Drill and Physical Training, and (2) has been a student in the College of Arts, Philosophy, and Science of this University at least one year, and (3) has included (or with the further work in the College of Arts, Philosophy, and Science mentioned in the next paragraph shall complete) sufficient courses to amount to thirty term hours in one or more of the five subjects: American History, European History, Economics, Sociology, and Political Science.

A student so registered in the two colleges must during his first year of double registration complete sufficient further work in the College of Arts, Philosophy, and Science to make his credits in that college aggregate 150 term hours, exclusive of the credit hours in Military Drill and Physical Training. When he has done this and has completed in the College of Law the first year of the course for the degree of Bachelor of Laws, he will be recommended for the degree of Bachelor of Arts; and when he has completed the second and third years of such course in the College of Law, he will be recommended for the degree of Bachelor of Laws.

Application to enter the combined course must be filed with the Dean of the Arts College before registration day at the beginning of the year in which the student is eligible to enter the combined work.

No credit in the College of Arts, Philosophy, and Science will be given for work done in the College of Law except as above provided, but regular fourth-year students in the former college may by special permission take a limited amount of the work in the College of Law without credit in the College of Arts, Philosophy, and Science.

The work of all students taking studies in the two colleges at the same time is under the jurisdiction of a joint committee, consisting of Professor Denney, Dean of the College of Arts, Philosophy, and Science; Dean of the College of Law; Professors Seibert, Page, and Bruce.

GRADUATE SCHOOL*

The purpose of the Graduate School is to facilitate the prosecution of literary and scientific research within the University and to assist in the training of a body of competent investigators and teachers among the graduate students enrolled in the various departments of the College of Arts, Philosophy, and Science. The instruction and training of graduate students has been one of the functions of the Ohio State University since 1878, when the first graduate student was in residence. For more than twenty years the graduate work of the University was unorganized and each department conducted its own work with little reference to that of other departments. In 1902, however, the graduate work within the College of Arts, Philosophy, and Science had assumed sufficient proportions to warrant the organization of a Graduate School to secure an effective and systematic arrangement of the graduate work of that College.

All communications and inquiries regarding matters connected with the Graduate School of the College of Arts, Philosophy, and Science, whether from prospective students or from those whose work is in progress should be directed to the Chairman of the Administrative Board of the Graduate School, Room 305, University Hall.

ADMISSION TO THE GRADUATE SCHOOL

(See also page 111)

Admission to the Graduate School is open to all graduates of this University, whether from the College of Arts, Philosophy, and Science, or from the other colleges, and is also open to graduates of other universities, colleges, and scientific schools of good standing who satisfy the Univer-

*A special bulletin describing the work of this school may be obtained by addressing the University Editor.

sity Entrance Board that they are qualified to pursue with profit the work offered within the Graduate School.

Graduates of institutions whose undergraduate courses of study are not substantially equivalent to the course prescribed for the bachelor's degree in the College of Arts, Philosophy, and Science of this University, may be required to do an additional amount of undergraduate work before being admitted to registration as members of the Graduate School. Under exceptional circumstances, persons of suitable age and attainments, who are not graduates of a college of recognized standing, may be admitted to registration in the Graduate School by special vote of the Administrative Board.

Admission to the Graduate School does not imply admission to candidacy for a degree. The conditions of candidacy for the higher degrees open to students in the Graduate School will be found later on in this bulletin under the heading, "Candidacy for Degrees."

REGISTRATION AND ASSIGNMENT OF STUDIES

An applicant for admission to the Graduate School should, in person, present his college diploma or other credentials to the University Entrance Board and, in case he is admitted, receive a card of admission to the Graduate School. This is to be done on the ***registration day*** of the term in which the student desires to enter the School. In case the applicant is a graduate of another institution, it is desirable to present with the other credentials a catalogue of the institution from which the bachelor's degree was received.

A student who is in any wise doubtful as to his eligibility for admission to the Graduate School should correspond previous to his coming to Columbus with the Chairman of the Administrative Board. Full details should be forwarded of the candidate's previous course of study, including a

catalogue of the institution in which the undergraduate work was done. In case the student has already taken graduate work in another institution and desires recognition of such work here, a full statement of the work done should be forwarded. In case the candidate is deemed eligible for admission, a statement to that effect will be sent him and this may later be presented to the University Entrance Board as proof of his right to register as a graduate student.

After having received from the Entrance Board a card of admission, the candidate should at once present this card to the Chairman of the Administrative Board of the Graduate School in Room 305, University Hall. He will then receive an election card for presentation to the several instructors with whom he desires to work. His work for the year having been arranged in consultation with his instructors the election card, bearing the certified approval of the instructors, is then left on file with the Chairman of the Administrative Board, who will issue to the student his fee card. The student, having paid his fees, will, upon presentation of the receipt to the Chairman of the Administrative Board, receive his registration card entitling him to enter classes and to use the University Library.

After a student's election card has been made out for the year changes in his course of study may be made only after a statement of such changes as are deemed essential has been made by the instructors immediately concerned and is left on file with the Chairman of the Administrative Board. No credit will be given on the University books for courses taken without the authorization of the Administrative Board. Registration should be completed as soon as possible after the opening of the term. *In order to receive credit for work done the student must have completed his registration within two weeks after the opening of the term.*

All students of the Graduate School, whether registered in a previous year or not, are required to register at the be-

ginning of each year with the Chairman of the Administrative Board and to leave on file with him their election cards for the current year. Students must also present themselves at the beginning of each term of the University year at the office of the Chairman of the Administrative Board and receive from him their fee cards and subsequently their registration cards. Prompt observance of this rule is necessary in order to satisfy the residence requirements for a degree.

Students who finish the undergraduate course of this University at the end of the fall, or winter term and who continue their residence at the University for the remainder of the year, are permitted to register in the Graduate School and secure the privileges of its membership, even though the bachelor's degree is not conferred until the close of the year.

CANDIDACY FOR DEGREES

Two higher degrees, Master of Arts and Doctor of Philosophy, are conferred by the University upon the completion of approved courses of resident graduate study in the Graduate School of the College of Arts, Philosophy, and Science.

In order to become a candidate for either of these degrees the student who has already been admitted to the Graduate School must make further application, on a blank provided for this purpose, to the Administrative Board to be allowed to become a candidate for the proposed degree and must satisfy the Board that his preparation for graduate work is beyond all question fully equivalent to the work required for the bachelor's degree in the College of Arts, Philosophy, and Science of this University. This application for candidacy for a degree must be made not later than January 15 of the academic year in which the degree is to be conferred. Admission to candidacy for a degree requires the approval of the Administrative Board, and of the professor in charge of the major subject. The work required

of candidates for the higher degrees is not confined to specific courses of instruction or to the completion of a definite number of hours. Each student in the Graduate School who expects to become at the time of registration or later a candidate for a higher degree selects at the time of registration a major and one or two minor subjects in which he desires to do his work. The candidate is required to work in at least two departments, although under certain conditions the major and *one* minor subject may be taken in the same department. The professors in charge of the subjects chosen constitute a special committee in charge of the student's work. The professor in charge of the major subject is chairman of the committee and to him the student goes, after receiving his election card, to arrange the details of his course. The chairman of the committee advises with regard to the choice of major study, the subject for a thesis, and the subordinate studies that may with advantage be combined with the major work. The choice of the minor subjects and the amount of work to be done along these lines, however, must secure the approval of the other members of the special committee who have charge of these courses. The studies thus selected will be entered upon the election card and after receiving the signature of all the instructors in charge of the work this card is left on file with the Administrative Board and becomes a part of the application for admission to candidacy for the proposed degree.

The special committee in charge of the student's work supervises the work being carried on by him in order to satisfy the requirements for the degree; its members pass judgment upon his thesis when it is written, conduct the final examinations upon the entire work undertaken for the degree and, if he passes, certify to the Administrative Board that the candidate is worthy of the degree sought.

In order that the candidate shall be recommended for a

degree by the Administrative Board the certificate that he has successfully passed his examination shall bear the signature of all members of the examining committee, but in case of a division of opinion within the committee an appeal may be taken to the college faculty. The examination in the minor subjects may, at the option of the special committee, be conducted at the time such minors are completed.

With the approval of the Administrative Board a candidate for a higher degree may elect specific courses additional to the major and minor studies. The amount of such additional elective, if any, which the student may take will in each case be determined by the Administrative Board, and it is to be understood that such work, if allowed, will not be credited towards the degree for which the candidate is working.

GRADUATE STUDENTS NOT CANDIDATES FOR A DEGREE

Graduate students who are not seeking a higher degree are not required to designate major or minor subjects, but may select their work with a view to the special purpose for which they are in attendance at the University. Like other graduate students, they register in the Graduate School and their election card must secure the approval of the Administrative Board. Any course of instruction announced in the College of Arts, Philosophy, and Science is open for election by graduate students not candidates for a degree upon the same conditions as are imposed upon undergraduates, but in case graduate students not candidates for a degree desire to enter courses designated in this bulletin "for graduates" or "primarily for graduates," they must obtain the consent of the professors in charge of such courses.

Should a graduate student who has not arranged his work in contemplation for a higher degree subsequently de-

sire to become a candidate for a degree, the amount of credit he is to receive for work already done will be determined at the time he applies for admission to candidacy for the degree.

THE DEGREE OF MASTER OF ARTS

The degree of Master of Arts is open to those students holding the Bachelor's degree who have been admitted to candidacy for the degree as provided above, and who have satisfied the residence requirements, completed the work, and passed the examinations as indicated below.

A residence of at least one year at this University, wholly devoted to the work for the degree, is required. No degrees are conferred by this University for work done *in absentia.*

Candidates for the Master's degree who hold their Bachelor's degree from this University may be permitted by the Administrative Board to do not to exceed one-half of the work required for the degree at another institution offering equivalent opportunities for graduate study. The candidate is, however, subject to final examination by this University on all work offered for the degree. This permission to do a part of the work required for the Master's degree elsewhere will not be granted to graduates of other institutions.

Candidates for the Master's degree are required to complete the work outlined for them on the election cards by the instructors in charge of the work and to pass a final examination thereon on the completion of such work. This examination may be either oral or written at the option of the instructors in charge of the courses taken. In those courses taken by the candidate in which examinations are regularly held at the close of each term, it shall be at the option of the instructor in charge whether or not candidates for the Master's degree are to be held for such examina-

tions. The course outlined for a candidate for the Master's degree must include a major and one or two minor subjects. At least one of the subjects selected as a minor shall be in a different department from that in which the major work lies. A thesis is usually required of those who take the Master's degree, though this requirement may be waived by the Administrative Board upon the recommendation of the professor in charge of the major subject.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is open to students who hold a Bachelor's degree from an institution of recognized standing, and who have spent not less than three years in resident graduate study either at this University or another one affording suitable facilities for graduate work. Either the first two years or the last year must be in residence at this University. Except in the case of students who have had a year or more of graduate work in some other university, no student will be enrolled as a candidate for the degree of Doctor of Philosophy who has not been in residence as a graduate student at this University for at least one year. The application for permission to become a candidate for a degree must have the approval of the professor in charge of the major subject. An application for admission to the doctor's degree will not be received later than January 15th of the academic year in which the degree is to be received. The applicant for admission to candidacy for the doctor's degree must file with the application a certificate signed by the professors of French and German at this University, showing that the candidate possesses a sufficient reading knowledge of these languages to be able to use them for purposes of research in his major subject.

The requirements of residence for the doctor's degree are of secondary importance. It is not intended that this degree should represent merely faithful and industrious

work for a specified length of time, but it is intended to represent high attainments in scholarship and an ability to carry on independent research work along the line of the major subject. Every candidate for the doctor's degree must select a major study which is broadly represented within some one department of instruction in the College of Arts, Philosophy, and Science. In this field he is supposed to familiarize himself with the general results which have been attained in the past and also by leading contemporary investigators and the methods of research by which these results have been attained. By means of a thesis he is to demonstrate his own ability to carry on research work and to reach independent and accurate conclusions. The preparation of a thesis is one of the most important requirements for the doctor's degree. It must be in the field of the candidate's major work, and is to be done under the direction and supervision of the professor in charge of the candidate's major study.

In the preparation of the thesis no limitations other than those imposed by a scientific spirit are placed upon a student's freedom of research and right to reach his own conclusions and express them in dignified language.

The thesis must be selected and approved by the special committee not later than November 1st of the academic year in which the degree is to be taken, and the subject must be reported to the Administrative Board not later than January 15th. The thesis must be completed and a type-written or printed copy placed in the hands of the chairman of the special committee in charge of the candidate's work not later than May 1st of the year in which the applicant expects to take his degree. No candidate will be admitted to examination until his thesis has been approved by the professor with whom he has his major study. Besides his major subject every candidate for the doctor's degree must also choose two minor subjects. One of them must be in

a different department from that of the major subject. Although it is not expected that the work done in the minor subjects will be so thorough and comprehensive as in the case of the major subject, the candidate will be expected to show the results of a wide acquaintance with the literature and scientific methods of investigation in the field of his minors as well as in that of his major subject.

The oral examination will be held at the close of the year in which the candidate expects to receive his degree on the subjects covered by the major and minor studies. This examination will be conducted by the special committee in charge of the candidate's work and by such other persons as the committee may ask to assist in the examination. The candidate must also be prepared to defend his thesis in public and to submit to a thorough examination on the same.

In case the thesis is accepted and the candidate successfully passes his examination, he is required to have his thesis printed and to deposit fifty copies of the same with the University Library. To guarantee the printing of the thesis the candidate, between the time when the thesis is accepted and the time of the examination, is required to deposit with the Bursar fifty dollars. In case he fails to pass his examination this sum will be returned to him. It will also be returned to him in case he is successful in his examination when he has deposited the required fifty copies with the University Library.

If the thesis is printed in a journal or other publication, reprints will be accepted by the University for the library copies, but they must be provided with special covers and the title pages in the regular thesis form.

In exceptional cases, by permission of the Administrative Board, a candidate for the doctor's degree may be allowed to take the examination on his major and minor subjects prior to the completion and approval of the thesis, but

the degree will not be conferred until the thesis has been completed and the candidate has defended it in an oral examination, as provided above.

GRADUATE WORK IN THE SUMMER TERM

Under a rule recently adopted by the University Faculty graduate students who register in the Graduate School and are admitted to candidacy for the Master's degree may complete the residence requirements for such degree by taking graduate work at the University for four Summer Terms of eight weeks each, or by taking three Summer Terms at the University and continuing work between terms under the supervision of the departments concerned and filing a satisfactory statement of such work with the Administrative Board together with the student's record in each case. See pages 238 to 254.

LAKE LABORATORY

The Lake Laboratory is maintained at Sandusky, Ohio, by the University during the summer for work in Botany, Entomology, Physiology and Zoology. For graduate students in these lines this laboratory affords exceptional opportunities. See pages 255 and following.

COLLEGE OF EDUCATION

This college is one of the instrumentalities of the State for the training of teachers. It offers practical and theoretical courses for the training of high school teachers and principals, for principals of elementary schools, for supervisors of special studies, for superintendents of school systems, and for instructors in normal schools. Its purpose is to assist the student in the acquirement of a knowledge of the branches which he wishes to teach, to give him a right attitude toward education, and to establish in him a skill in the use of efficient methods of teaching.

FACULTY

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University.

WILLIAM W. BOYD, A. M., DEAN, Professor of School Administration.

GEORGE D. HUBBARD, Ph. D., SECRETARY, Assistant Professor of Geology.

ROSSER DANIEL BOHANNAN, B. S., C. E., E. M., Professor of Mathematics.

ALFRED DODGE COLE, M. A., Professor of Physics.

JOSEPH VILLIERS DENNEY, B. A., Professor of English.

SAMUEL CARROLL DERBY, A. M., Professor of the Latin Language and Literature.

ANNA K. FLINT, B. S., Associate Professor of Domestic Art.

FRANK P. GRAVES, Ph. D., LL. D., Professor of the History and Philosophy of Education.

MARY R. LAVER, Associate Professor of Art.

THOMAS SCOTT LOWDEN, Ph. D., Associate Professor of the Principles and Practice of Education.

WILLIAM MCPHERSON, Ph. D., Professor of Chemistry.

DAVID R. MAJOR, Ph. D., Professor of Psychology.

LEWIS ADDISON RHOADES, Ph. D., Professor of Germanic Languages and Literatures.

WILBUR HENRY SIEBERT, A. M., Professor of European History.

HENRY RUSSELL SPENCER, Ph. D., Professor of History and Political Science.

KARL DALE SWARTZEL, M. Sc., Professor of Mathematics.

JULIA E. TITSWORTH, Assistant Professor of Art.

RUTH AIMEE WARDALL, A. M., Professor of Domestic Science.

CURRICULA

Two general classes of curricula have been provided. The first consists of four year courses leading to the degree of Bachelor of Science in Education. The second consists of certificate courses of two years in length.

In the four year courses, the first two years are given largely in the College of Arts, Philosophy, and Science. But students preparing to teach agriculture and those preparing to teach domestic science will take the first two years of work in the College of Agriculture and Domestic Science; while students preparing to teach manual training will take the first two years of work in the College of Engineering. Upon entering the University, all students preparing to teach should consult the Dean of the College of Education regarding the arrangement of their courses.

ASSIGNMENTS

If a student is admitted without advanced standing, he will be assigned for the first two years to the college within which is found opportunity to pursue that branch of study which he is preparing to teach. Usually this will be in the College of Arts, Philosophy, and Science, but it may be in the College of Engineering or in the College of Agriculture and Domestic Science. After two full years of college work the student will be transferred to the College of Education for the additional two years of work. If a student enters with advanced standing amounting to ninety hours, he will be assigned at once to the College of Education.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and eighty term hours under the restrictions and requirements prescribed below, the student will be recommended for the degree of Bachelor of Science in Education.

The subject which the student is preparing to teach will determine the election of the group of studies for the first two years. Each student is required to lay sufficiently broad foundations, during the first two years, in English, in two other languages to be chosen by himself, in mathematics and one science, or in two sciences to be chosen by himself, and in psychology and philosophy. In order to guard against the danger of too narrow or too wide a range of work, a maximum and a minimum number of departments is fixed in which the student is allowed to work during the first two years.

The ninety term hours required for the completion of the first two years must include the following sixty-six term hours:

(a) English, 1, 2, 3. (2-2-2) 6 term hours,
and English 8. (3-3-3) 9 term hours.

(b) Two of the following languages : (8-8-8) 24 term hours.
Greek 1 or 7, 8, 9; Latin 1, 2, 3;
French 1 or 2; German 1 or 4; Spanish 1 or 2.

(c) Mathematics 31, 32, 33, and 24. (6-6-6) 18 term hours or
Two of the following: at least (6-6-6) 18 term hours.
Mathematics 21, 22, 23; Physics 11 or 2;
Chemistry 7 or 44; Botany 21, 22, 23; Zoology 31.
Geology 17; Physiology 1.

(d) Psychology 1, and Philosophy 101, or Psychology 1a, (3-3-3) 9 term hours.

The major work of a student (the branch which he is preparing to teach) must begin not later than the Sophomore year, and where prerequisites do not interfere may be begun in the Freshman year. Students electing either Art, Domestic Science, or Manual Training as a major subject may substitute credits in such subject not to exceed five credit hours per term, as a part of the sixty-six hours required above.

The ninety term hours required for the completion of the last two years must include the following:

FUNDAMENTAL COURSES

Educational Psychology, not less than six credit hours.
History of Education, not less than nine credit hours.
Elements of Sociology, not less than six credit hours.

MAJOR COURSES

The major work elected in the first or second year—hours enough to satisfy the professor in charge that the scholarship warrants a recommendation for teaching.

PROFESSIONAL COURSES

The principles and practice of teaching the major subject—not less than six credit hours. Credit for this work may be given to experienced teachers.

OUTLINE BY YEARS

FRESHMAN YEAR

(Not given in College of Education)

(a) Fifteen or sixteen hours each term, chosen from the prescribed work indicated above, including English 1, 2, 3.

(b) Cadet Service (men). Hygiene and Physical Training (women); required throughout the Freshman year.

SOPHOMORE YEAR

(Not given in College of Education)

(a) Fifteen hours each term. This must include English 8, Psychology 1, and Philosophy 101 or Psychology 1a, and all other prescribed work necessary to make the sixty-six hours not done in the Freshman year; the other work of the Sophomore year to be in two or three departments of which at least one shall be a department in which the student has worked during the Freshman year.

(b) Cadet Service (men). Hygiene and Physical Training (women); required throughout the Sophomore year.

At the end of the Sophomore year the student is transferred to the College of Education. Students who bring from other approved colleges explicit and official certificates describing their courses of study and scholarship, showing that they have completed the equivalent of the ninety hours of work prescribed above, will be admitted to the College of Education without conditions, subject to the rules of the Entrance Board. Similarly the work of the State Normal Schools of Ohio will be accredited, subject to the rules of the Entrance Board.

The work of the College of Education will consist of,

(a) Fundamental courses required of all students.

(b) Major courses in those subjects which the student expects to teach.

(c) Professional courses correlated with the major courses and designed to give practical instruction in the theory and practice of teaching the major subjects.

(d) Practice and observation work in public schools.

(e) Elective courses chosen from any department of the University by the student upon the advice and approval of the Executive Committee of the College.

JUNIOR YEAR

Fifteen hours each term. This must include the major subject with a credit of from three to five hours each term; Sociology, six credit hours; Educational Psychology, six credit hours. The electives amounting to from six to eight hours each term may be chosen from any department of the University, subject to the approval of the Executive Committee of the College.

SENIOR YEAR

Fifteen hours each term. This must include a professional course in the major subject with two hours credit each term, enough work in the major subject to complete the requirement in that branch, and History of Education, nine credit hours. The electives needed to complete the required number of hours for graduation may be chosen from any department of the University, subject to the approval of the Executive Committee of the College.

TWO DEGREES

Students who have received credits for two hundred and ten hours and who have met all requirements, both for a degree in the College of Arts, Philosophy, and Science, and for a degree in the College of Education, will be granted the degree of Bachelor of Arts by the former college and the

degree of Bachelor of Science in Education by the latter college. Applicants for both degrees must register in both colleges.

OUTLINE FOR GENERAL COURSE

(College of Arts, Philosophy, and Science)

FIRST YEAR

First Term		Second Term		Third Term	
English (1)	2.	*English* (2)	2.	*English* (3)	2.
Group (b)	8.	Group (b)	8.	Group (b)	8.
Group (c)	6.	Group (c)	6.	Group (c)	6.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

English (8)	3.	*English* (8)	3.	*English* (8)	3.
Psychology 1	3.	*Psychology* 1	3.	*Philosophy* 101	3.
Group (b)	4.	Group (b)	4.	Group (b)	4.
Major work	3 to 5.	*Major work*	3 to 5.	*Major work*	3 to 5.
Elective	0 to 2.	Elective	0 to 2.	Elective	0 to 2.
Military Drill	1.	Military Drill	1.	Military Drill	1.

(Transfer to be made to College of Education)

THIRD YEAR

Major work	3 to 5.	*Major work*	3 to 5.	*Major work*	3 to 5.
Sociology (1)	3.	*Sociology* (2)	3.	Eu. Hist. (3)	3.
Psychology (2)	2.	*Psychology* (2)	2.	*Psychology* (2)	2.
Elective	5 to 7.	Elective	5 to 7.	Elective	5 to 7.

FOURTH YEAR

Professional Course and Practice	2.	*Professional Course and Practice*	2.	*Professional Course and Practice*	2.
Major work	2 to 4.	Major work	2 to 4.	Major work	2 to 4.
Hist. of Ed.	3.	*Hist. of Ed.*	3.	*Hist. of Ed.*	3.
Elective	6 to 8.	Elective	6 to 8.	Elective	6 to 8.

Branches in italics are required. The groups mentioned are to be found on page 13.

The major study should be the study which the student expects to teach.

The electives should include one or two other studies which the student may teach.

COURSE IN ART

(College of Arts, Philosophy, and Science)

FIRST YEAR

First Term		Second Term		Third Term	
English (1)	2.	English (2)	2.	English (3)	2.
Language	4.	Language	4.	Language	4.
Art (10)	2.	Art (11)	2.	Art (12)	2.
Art (20)	2.	Art (21)	2.	Art (22)	2.
Zoology (1) or Botany (13)	3.	Zoology (1) or Botany (13)	3.	Zoology (1) or Botany (13)	3.
Elective	3.	Elective	3.	Elective	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

English (8)	3.	English (8)	3.	English (8)	3.
Psychology (1)	3.	Psychology (1)	3.	Philosophy (101)	3.
Language	4.	Language	4.	Language	4.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Art (13)	2.	Art (14)	2.	Art (15)	2.
Art (35)	2.	Art (36)	2.	Art (37)	2.
Military Drill	1.	Military Drill	1.	Military Drill	1.

(Transfer to be made to College of Education)

THIRD YEAR

Sociology (1)	3.	Sociology (2)	3.	Eur. History (3)	3.
Psychology (2)	2.	Psychology (2)	2.	Psychology (2)	2.
Art (16)	3.	Art (17)	3.	Art (18)	3
Art (40)	3.	Art (41)	3.	Art (42)	3.
Engineering Drawing (2)	3.	Engineering Drawing (40)	2.	Engineering Drawing (41)	2.
Elective	2.	Elective	2.	Elective	2.

FOURTH YEAR

Hist. of Ed. (1)	3.	Hist. of Ed. (1)	3.	Hist. of Ed. (1)	3.
Professional and Practice Work	2.	Professional and Practice Work	2.	Professional and Practice Work	2.
Art (50)	3.	Art (51)	3.	Art (52)	3.
Art (43)	4.	Art (44)	4.	Art (45)	4.
Elective	3.	Elective	3.	Elective	3.

COURSE IN DOMESTIC SCIENCE

(College of Agriculture and Domestic Science)

FIRST YEAR

First Term		Second Term		Third Term	
Chemistry (7 or 44) Inorganic.	4.	Chemistry (7 or 44) Inorganic.	4.	Chemistry (12) Qualitative Analysis.	4.
Art (10)	2.	Art (11)	2.	Art (12)	2.
English (1) Paragraph Writing.	2.	English (2) Expository Writing.	2.	English (3) Brief Making.	2.
Zoology (1) Invertebrate.	3.	Zoology (1) Invertebrate.	3.	Zoology (1) Vertebrate.	3.
French (1) or German (1)	4.	French (1) or German (1)	4.	French (1) or Greman (1)	4.
Domestic Art (1) Hand Craft.	2.	Domestic Art (2) Textiles.	2.	Domestic Art (3) Textiles.	2.
Hygiene and Physical Training	1.	Hygiene and Physical Training	1.	Hygiene and Physical Training	1.

SECOND YEAR

Chemistry (34) Organic.	5.	Ag. Chem. (14)	5.	Ag. Chem (14)	5.
Dom. Science (1) Foods.	3.	Dom. Science (2) Foods.	3.	Dom. Science (3) Foods.	3.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
French (2) or German (4)	4.	French (2) or German (4)	4.	French (2) or German (4)	4.
Eng. Drawing (20)	1.	Eng. Drawing (15)	1½.	Eng. Drawing (15)	1½.
Hygiene and Physical Training	1.	Hygiene and Physical Training	1.	Hygiene and Physical Training.	1.

(Transfer to be made to College of Education)

THIRD YEAR

Economics (33)	3.	Economics (33)	3.	Economics (33)	3.
Psychology (1)	3.	Psychology (1)	3.	Psychology (1a) or Philos. (101)	3.

(Either Division A or B must be elected; both may be taken)

DIVISION A

Bacteriology (5)	3-5.	Bacteriology (7)	3-5.	Dom. Sci. (10)	3.
Chemistry (21)	3-5.	Dom. Sci. (4)	4.	Dom. Sci. (11)	3.

DIVISION B

Art (13)	2.	Art (14)	2.	Art (15)	2.
Dom. Art (4)	4.	Dom. Art (5)	4.	Dom. Art (8)	4.

ELECTIVES

Eng. (8)	3.	Eng. (8)	3.	Eng. (8)	3.
Arch. (9)	3.	Arch. (9)	3.	Arch. (9)	3.

FOURTH YEAR

Sociology (1)	3.	Sociology (1)	3.	Sociology (1)	3.
Hist. of Ed. (1)	3.	Hist. of Ed. (1)	3.	Hist. of Ed. (1)	3.
Pr. & Pr. of Ed. (1)	3.	Pr. & Pr. of Ed. (2)	3.	Pr.& Pr. of Ed. (3)	3.
Ed. Psych. (2)	2.	Ed. Psych. (2)	2.	Ed. Psych. (2)	2.
(Either Division A or B must be elected; both may be taken)					
		DIVISION A			
Dom. Sci. (13)	2-5.	Dom. Sci. (13)	2-5.	Dom. Sci. (13)	2-5.
Dom. Sci. (12)	3.				
		DIVISION B			
Drawing (17)	2.	Drawing (40)	2.	Drawing (41)	2.
		Dom. Art. (6)	3.		

COURSE IN MANUAL TRAINING

(College of Engineering)

FIRST YEAR

First Term		Second Term		Third Term	
English (1)	2.	English (2)	2.	English (3)	2.
Language	4.	Language	4.	Language	4.
Chem. (7 or 44)	4.	Chem. (7 or 44)	4.	Chemistry (12)	4.
Mathematics (21)	3.	Mathematics (22)	3.	Mathematics (23)	3.
Drawing (27)	2.	Drawing (25)	1.	Drawing (26)	1.
		Drawing (31)	1.	Drawing (32)	2.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

English (7 or 8)	3.	English (7 or 8)	3.	English (7 or 8)	3.
Language	4.	Language	4.	Language	4.
Psychology (1)	3.	Psychology (1)	3.	Philosophy (101)	3.
Drawing (33)	3.	Drawing (34)	3.	Drawing (35)	3.
Shopwork (7)	3.	Shopwork (9)	3.	Shopwork (8)	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

(Transfer to be made to College of Education)

THIRD YEAR

Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Sociology (1)	3.	Sociology (2)	3.	Europ. Hist. (3)	3.
Psychology (2)	2.	Psychology (2)	2.	Psychology (2)	2.
Art (10)	2.	Art (11)	2.	Art (12)	2.
Shopwork (11)	3.	Shopwork (3)	3.	Shopwork (4)	3.
Elective	3.	Engineering Drawing (40)	2.	Engineering Drawing (41)	2.
				Architecture (7)	2.

FOURTH YEAR

History of Education (1)	3.	History of Education (1)	3.	History of Education (1)	3.
Professional and Practice Work	2.	Professional and Practice Work	2.	Professional and Practice Work	2.
Shopwork (12)	3.	Shopwork (13)	3.	Shopwork (14)	3.
Elective	7.	Elective	7.	Elective	7.

CERTIFICATE COURSES

Short courses, embracing the fundamental courses, a major subject, the professional courses related to the major subject, and enough work to complete ninety hours credit, are offered to students who can qualify under the requirements for special students. Upon the completion of the short courses, certificates of the work done will be granted.

SATURDAY COURSES

A number of Saturday courses in the College of Education are open to teachers living in or near Columbus. These courses carry credit, subject to the usual restrictions of entrance requirements. The hours are so arranged on Saturday mornings that it is possible for a teacher to obtain four hours credit each term.

GRADUATE WORK

Two higher degrees, Master of Arts, and Doctor of Philosophy, are conferred by the University upon completion of approved courses of resident graduate study in the College of Education.

MASTER'S DEGREE. A person holding the Bachelor's degree from an approved institution may be registered for work leading to the degree of Master of Arts under the direction of the Executive Committee of the College of Education and subject to the following conditions:

1. The candidate must spend at least one year at the University subsequent to the taking of his Bachelor's degree. (But three summer terms of full time work are regarded as the equivalent of a year's residence, provided that the work undertaken be continued between terms and be supervised by the departments concerned.)

2. The candidate must pass examinations in the course of study convering one major and one or two minor studies

prescribed for him by the departments concerned and approved by the Executive Committee.

3. The major study must be advanced specialized work. The candidate shall prepare a thesis upon some subject within the field of the major subject, unless this requirement be waived by the Executive Committee. The subject of the thesis must be chosen and approved by December first, and the completed thesis must be submitted not later than June first.

4. In lieu of the requirements of the second and third articles, a candidate may be recommended for the Master's degree upon special attainments of forty-five hours credit for work approved by the Executive Committee, after having completed the course for the Bachelor's degree.

DOCTOR'S DEGREE. A person holding the Bachelor's degree from an approved institution may register for the degree of Doctor of Philosophy under the direction of the Executive Committee of the College of Education, subject to the following conditions:

1. The candidate must spend three years of residence in work for the degree, the last of which at least, shall be at this University. Persons who hold the Master's degree from this University, or for actual resident graduate study at another university offering equivalent graduate opportunities and work, may ordinarily expect to shorten by one year the above requirement as to time and amount of work for the Doctor's degree.

2. The candidate at the time of enrollment must possess a reading knowledge of French and German.

3. Each candidate for the Doctor's degree must pursue a major study and two allied minor studies, one of which may be within the same department as the major. All of them must be advanced specialized work. The degree is intended to represent not a specified amount of work, cover-

ing a specified time, but long study and high attainment in a special field.

4. Each candidate must prepare a thesis within the field of his major study involving an extended research or investigation and constituting an original contribution to knowledge. The thesis for the Doctor's degree is one of the most essential factors in the candidate's work, since it measures his accuracy and power of independent investigation.

The administration of the graduate work of the College of Education is in the hands of Professor Frank P. Graves, and all communications concerning the work should be addressed to him.

SUMMER TERM

The University conducts a summer term for eight weeks. A number of courses are offered, for which credits are given in the College of Education. As applicable to the graduate work, three summer terms of full time work are required as the equivalent of a year's residence, provided that the work undertaken in the summer term is continued between terms and supervised by the departments concerned and a detailed statement of such *ad interim* work satisfactory to the committee on graduate work is filed with the committee. Otherwise, four summer terms are regarded as equivalent to a year's residence.

COLLEGE OF ENGINEERING

COURSES OFFERED

This college offers instruction in nine important fields of engineering work. Covering these the following four-year courses of study are offered:

1. Architecture, leading to the degree of Civil Engineer in Architecture (C. E. in Arch.).
2. Ceramic Engineering, leading to the degree of Ceramic Engineer (Cer. E.).
3. Chemical Engineering, leading to the degree of Bachelor of Science in Chemical Enginering (B. Sc.).
4. Civil Engineering, leading to the degree of Civil Engineer (C. E.)
5. Electrical Engineering, leading to the degree of Mechanical Engineer in Electrical Engineering (M. E. in E. E.).
6. Industrial Arts, leading to the degree of Bachelor of Science in Industrial Arts (B. Sc.).
7. Manual Training, leading to the degree of Bachelor of Science in Industrial Arts (B. Sc.).
8. Mechanical Engineering, leading to the degree of Mechanical Engineer (M. E.).
9. Mine Engineering, leading to the degree of Engineer of Mines (E. M.)

The following two-year, or short courses, do not lead to a degree, but students completing them are furnished a formal certificate stating the work they have accomplished:

10. Clay-working.
11. Industrial Arts and Shopwork.
12. Mining.

FACULTY AND INSTRUCTORS

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT OF THE UNIVERSITY.

SIDNEY AUGUSTUS NORTON, Ph. D., LL. D., Emeritus Professor and Lecturer in Chemistry.

STILLMAN W. ROBINSON, C. E., D. Sc., Emeritus Professor of Mechanical Engineering.

ROBERT WHITE MCFARLAND, LL. D., Emeritus Professor of Civil Engineering.

FRANCIS CARY CALDWELL, B. A., M. E., ACTING DEAN, Professor of Electrical Engineering.

JAMES ELLSWORTH BOYD, M. S., SECRETARY and Professor of Mechanics.

NATHANIEL WRIGHT LORD, E. M., Professor of Metallurgy and Mineralogy and Director of the School of Mines.

EDWARD ORTON, JR., E. M., Professor of Ceramic Engineering and Director of the Department.

BENJAMIN FRANKLIN THOMAS, Ph. D., Professor of Physics.

ROSSER DANIEL BOHANNAN, B. Sc., C. E., E. M., Professor of Mathematics.

BENJAMIN LESTER BOWEN, Ph. D., Professor of Romance Languages and Literatures.

JOSEPH VILLIERS DENNEY, B. A., Professor of English.

WILLIAM THOMAS MAGRUDER, M. E., Professor of Mechanical Engineering.

WILLIAM MCPHERSON, JR., D. Sc., Ph. D., Professor of Chemistry.

JOSEPH NELSON BRADFORD, M. E., Professor of Architecture.

FRANK EDWIN SANBORN, S. B., Professor of Industrial Arts and Director of the Department.

FRANK ARNOLD RAY, E. M., Professor of Mine Engineering.

HENRY CURWEN LORD, B. Sc., F. R. A. S., Professor of Astronomy and Director of the Emerson McMillin Observatory.

EMBURY ASBURY HITCHCOCK, M. E., Professor of Experimental Engineering.

CHARLES SMITH PROSSER, Ph. D., Professor of Geology.

CHRISTOPHER ELIAS SHERMAN, C. E., Professor of Civil Engineering.

LEWIS ADDISON RHOADES, Ph. D., Professor of Germanic Languages and Literatures.

FRANK HARVEY ENO, B. Sc., C. E., Professor of Municipal Engineering.

THOMAS EWING FRENCH, M. E., Professor of Engineering Drawing.

GEORGE WASHINGTON MCCOARD, M. A., Professor of Mathematics.

WILLIAM EDWARDS HENDERSON, Ph. D., Professor of Inorganic and Physical Chemistry.

CHARLES A. BRUCE, B. A., Professor of the Romance Languages.

CHARLES WILLIAM FOULK, B. A., Professor of Analytical Chemistry.

MATTHEW BROWN HAMMOND, Ph. D., Professor of Economics and Sociology.

CLYDE T. MORRIS, C. E., Professor of Structural Engineering.

KARL DALE SWARTZEL, M. Sc., Professor of Mathematics.

*EDWARD ELSWORTH SOMERMEIER, G. Ph., Associate Professor of Metallurgy and Mineralogy.

HARRY WALDO KUHN, Ph. D., Professor of Mathematics.

FREDERICK EDWARD KESTER, Ph. D., Associate Professor of Physics.

CHARLES LINCOLN ARNOLD, M. Sc., Associate Professor of Mathematics.

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*Absent on leave, 1908-1909.

EDWIN F. CODDINGTON, Ph., D., Associate Professor of Mechanics.

WILLIAM LLOYD EVANS, Ph. D., Associate Professor of Chemistry.

BERTHOLD AUGUST EISENLOHR, M. A., Associate Professor of the Germanic Languages and Literatures.

SAMUEL EUGENE RASOR, B. Sc., Associate Professor of Mathematics.

JOHN HERMAN HUNT, B. S. in E. E., Associate Professor in Electrical Engineering.

ROSS C. PURDY, Cer. E., Associate Professor of Ceramic Engineering.

CHARLES ST. JOHN CHUBB, Jr. C. E. (Arch.), Associate Professor of Architecture.

ROBERT F. EARHART, Ph. D., Assistant Professor of Physics.

WILLIAM ABNER KNIGHT, M. E., Assistant Professor of Machine-Shop Practice.

HORACE JUDD, M. E., M. Sc., Assistant Professor of Experimental Engineering.

CARSON SAMUEL DUNCAN, M. S., Assistant Professor of English.

ROY K. SCHLAFLY, C. E., Assistant Professor of Civil Engineering.

THOMAS KENYON LEWIS, B. Sc., Assistant Professor of Engineering Drawing.

JAMES RENWICK WITHROW, Ph. D., Assistant Professor of Chemistry.

EDMUND SEWALL MANSON, JR., M. S., Assistant Professor of Astronomy.

ROBERT MEIKLEJOHN, M. E., Assistant Professor of Engineering Drawing.

RALPH ROGERS, B. S. in M. E., Assistant Professor of Engineering Drawing.

CARL RIGDON, M. E., Assistant Professor of Experimental Engineering.

OLIVER C. LOCKHART, M. A., Assistant Professor of Economics and Sociology.

WALTER LYMAN UPSON, M. E. E., Assistant Professor of Electrical Engineering.

DANA J. DEMOREST, B. Sc. (Chem. Eng.), Acting Assistant Professor of Metallurgy and Mineralogy.

CHARLES C. MORRIS, M. A., Assistant Professor of Mathematics.

ADOLPH BUSSE, Ph. D., Assistant Professor of the Germanic Languages and Literatures.

JOHN ROSS CHAMBERLIN, Assistant Professor of Civil Engineering.

FELLOWS

GERALD PIERCE LAWRENCE, M. E., Robinson Fellow in Engineering.

LEROY W. ROUSH, M. E. in E. E., Fellow in Electrical Engineering.

*JAMES PARK CALDERWOOD, M. E., Fellow in Experimental Engineering.

CHARLES C. GRANT, Fellow in Experimental Engineering.

ADMISSION

Applicants for admission must be at least seventeen years of age. The College is open on equal terms to both sexes.

REQUIREMENTS BY UNITS

A unit is the equivalent of a course of study covering a school year of not less than thirty-six weeks, with five periods of at least forty-five minutes each per week. To obtain full standing, applicants under twenty-one years of age must have credit by examination or certificate for fifteen

*Resigned, April 1, 1909.

units—of which three shall be English, one history, three mathematics (including solid Geometry), one physics, and four language other than English—selected from the following list:

English ..... 3 units
(Foreign students may substitute their native language for the English requirement.)

American History or American History and Civil Government ..... 1 unit
Ancient History (Greek and Roman) and Medieval History to 814 A. D. ..... 1 unit
Medieval and Modern History (from 814 A. D. to the present)..... 1 unit
(For the present General History may be counted as a unit, but not in addition to Ancient or Medieval and Modern History.)
English History ..... 1 unit

Algebra (through quadratics) ..... 1 unit
Algebra (beyond quadratics) ..... ½ unit
Geometry (plane) ..... 1 unit
Geometry (solid) ..... ½ unit
Trigonometry ..... ½ unit

Latin ..... 2, 3, or 4 units
Greek ..... 2, 3, or 4 units
German ..... 2, 3, or 4 units
French ..... 2, 3, or 4 units
Spanish ..... 2, 3, or 4 units
(Not less than two units of any language will be accepted.)

Physics ..... 1 unit
Chemistry ..... 1 unit
Physical Geography ..... 1 unit
Zoology ..... 1 unit
Botany ..... 1 unit

Physical Geography
Zoology
Botany
Physiology
} For the present any two of these may be counted together as..... 1 unit

Agriculture Free-hand Drawing* Manual Training Domestic Science	The Entrance Board may, after investigating each claim, grant a total credit of not to exceed.. 2 units

Preparation in excess of the requirement in any subject will not be credited unless it amounts to one-half unit.

No student under twenty-one years of age will be admitted to college if he is conditioned in more than two of the fifteen units. All entrance conditions must be removed within two years after admission.

An applicant twenty-one years of age or over, who is deficient in foreign language training will be admitted with a total deficiency of four units, provided at least two of the four are in the foreign language group.

Students over twenty-one years of age are admitted in accordance with the provisions stated under "Admission to Studies," page 110.

The extent and character of the work required in each subject mentioned above is indicated on page 112 and following.

REMOVAL OF ENTRANCE CONDITIONS

The removal of entrance conditions is administered by the Entrance Board. Conditions may be removed (1) by examination (for schedule of examinations see page 11); or (2) by the substitution of excess work in other approved subjects; or (3) by the substitution of other equivalent work to be done at the University at such time and in such subjects as the Entrance Board shall direct. All entrance conditions must be removed before the beginning of the third year of residence at the University, and a condition in Physics before the beginning of the second year.

*Students expecting to enter the College of Engineering are advised to take free-hand drawing in the high school.

ADMISSION TO THE SHORT COURSES

Applicants must be at least seventeen years of age, and, unless they are over twenty-one years of age, must pass examinations in Arithmetic and Georgraphy, and must be able to write a business letter or a short theme, correct in grammar and orthography; or they must present satisfactory certificates showing that they have successfully pursued these subjects elsewhere. In addition, each applicant under twenty-one years of age must present a letter or certificate showing that he has had at least one year's practical experience in some industry related to the course which he wishes to pursue.

Applicants over twenty-one years of age are admitted without examination, and without letter or certificate of practical experience.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work in this College and do not desire to become candidates for degrees, will be admitted on the conditions as stated on page 110.

ADMISSION TO ADVANCED STANDING

For admission to advanced standing in this College see requirements as stated on page 109.

ADMISSION TO GADUATE WORK

For admission to graduate work in this College see statement on page 110.

COURSES OF STUDY

OUTLINE OF THE FIRST YEAR'S WORK OF ALL FOUR-YEAR COURSES

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

FIRST TERM		SECOND TERM		THIRD TERM	
Mathematics (31) Algebra.	5.	Mathematics (32) Trigonometry.	5.	Mathematics (33) Analytics.	5.
Chemistry (7 or 44) Inorganic.	4.	Chemistry (7 or 44) Inorganic.	4.	Chemistry (12) Qualitative Analysis.	4.
Modern Language French, Ger. or Span.	4.	Modern Language French, Ger. or Span.	4.	Modern Language French, Ger. or Span.	4.
English (1) Para. Writing.	2.	English (2) Expos. Writing.	2.	English (3) Brief Making.	2.
Eng. Drawing (1) Elem. Mechan.	2.	Eng. Drawing (2) Lettering.	2.	Eng. Drawing (3) Mech. Draw.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

Students presenting Chemistry as an entrance subject will take Chemistry 44.

SUMMER TERM IN SHOPWORK—Students electing courses named below are required to take Shopwork courses in the summer term as follows:

Chemical Engineering—Shopwork (7) and (11) at the close of the first or second year.

Ceramics, Electrical Engineering, and Mechanical Engineering—Two from Shopwork (4), (7), and (11), at the close of the first year.

Industrial Arts—Shopwork (7) and (11), at the close of the first year.

COURSE IN ARCHITECTURE

FOR OUTLINE OF FIRST YEAR SEE PAGE 201

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Architecture (9) Hist. of Architecture.	3.	Architecture (10) Hist. of Architecture.	3.	Architecture (11) Hist. of Architecture.	3.
Architecture (12) The Orders.	2.	Architecture (13) Order Problems.	3.	Architecture (14) Order Problems.	3.
Eng. Drawing (33) Projections.	3.	Eng. Drawing (36) Descriptive Geometry.	5.	Architecture (26) Arch. Perspective.	5.
Drawing (42) Charcoal Drawing from Arch. Ornament.	2.	Drawing (14) Pen Drawing.	2.	Drawing (14) Pen Drawing.	2.
Mathematics (41) Calculus.	5.	Mathematics (42) Calculus.	5.	Mathematics (43) Calculus.	5.
Physics (2) Mechanics, Heat.	4.				
Military Drill	1.	Military Drill	1.	Military Drill	1.

SUMMER WORK

THIRD YEAR

Architecture (15) Designing.	4.	Architecture (23) Designing.	4.	Architecture (17) Designing.	4.
Architecture (5) Decoration, etc.	5.	Architecture (27) Stereotomy.	3.	Architecture (24) Structural Details.	5.
Architecture (22) Arch. Composition.	2.	Drawing (18) Water Color.	2.	Drawing (19) Water Color.	2.
Architecture (33) Photography.	2.	Drawing (40) Clay Modeling.	2.	Drawing (41) Clay Modeling.	2.
Mechanics (1) Statics.	5.	Mechanics (2) Strength Materials.	5.	Civil Eng. (19) Trusses.	5.
		Civil Eng. (14) Cement Work.	2.		

SUMMER WORK

FOURTH YEAR

Architecture (18) Designing.	4.	Architecture (21) Designing.	4.	Architecture (19) Designing.	4.
Architecture (25) Plumbing.	2.	Architecture (4) Specifications.	2.	Architecture (29) Professional Practice.	2.
Architecture (30) Monumental Design.	3.	Architecture (28) Estimating.	2.	Architecture (20) Thesis.	5.
Drawing (43) Charcoal Drawing from Antique.	2.				
Civil Eng. (34) Masonry.	3.	Civil Eng. (28) Steel Construction.	5.	Civil Eng. (21) Surveying.	3.
Mech. Eng. (23) Materials of Constr.	4.	Mech. Eng. (42) Heating and Vent.	3.	Civil Eng. ( ) Reinforced Concrete.	2.

THESIS

COURSE IN CERAMIC ENGINEERING

FOR OUTLINE OF FIRST YEAR SEE PAGE 201

SUMMER TERM.—Students are required to take *two* of the following courses in shopwork in the summer term at the close of the first year: Shopwork (4), (7), and (11).

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
†Drawing (33) Projection Drawing.	3.	†Drawing (34) Descriptive Geometry.	3.	†Drawing (35) Adv. Descriptive Geom.	3.
Mathematics (41) Calculus.	5.	Mathematics (42) Calculus.	5.	Mathematics (43) Calculus.	5.
Physics (31) Mechanics, Heat.	5.	Physics (32) Elect'y, Magnetism.	5.	Physics (32) Light, Sound.	5.
Ceramics (1) Laboratory.	5.	Ceramics (2) Laboratory.	5.	Ceramics (3) Laboratory.	3.
				Ceramics (24) Ceramic Calculation.	2.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Str'n'th Mat'ls, Kinet.	5.	Mech. Eng. (43) Mechanism.	5.
Ceramics (4) Raw Materials.	5.	Ceramics (5) Preparation and Mnfr.	5.	Ceramics (6) Drying and Burning.	5.
Mine Eng. (4) Mine Surveying.	5.	Chemistry (30) Phys. Chem. Lectures.	3.	Ceramics (26) Phys. Chem. Meas.	5.
Architecture (33) Photography.	2.	Ceramics (25) Identification of Clays.	3.	Ceramics (27) Decoration of Clay Wares.	3.

FOURTH YEAR

Ceramics (9) Manf. of Bodies.	5.	Ceramics (10) Glasses and Glazes.	5.	*Ceramics (11) Enamels, Colors.	5.
Metallurgy (4) Fuels and Iron.	5.	Civil Eng. (19) Trusses.	5.	*Ceramics (12) Cement.	5.
Geology (2) General.	5.	Geology (6) Economic.	3.	Ceramics (15) Thesis Work.	5.
		Geology (7) Petrography.	2.	Mech. Eng. (36) Laboratory.	5.
Drawing (21) Technical Draw.	2.	Drawing (22) Technical Draw.	2.	Drawing (23) Technical Draw.	2.
		THESIS			

*Students are to elect Ceramics (11) or (12).

†For 1909-1910 only.

COURSE IN CHEMICAL ENGINEERING

FOR OUTLINE OF FIRST YEAR SEE PAGE 201

SUMMER TERM—Shopwork Courses (7) 3 and (11) 3 are to be taken in the summer term at the close of the first or second year.

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (20)	4.	Chemistry (20)	4.	Chemistry (20)	4.
Chemistry (21)	2.	Chemistry (21)	2.	Chemistry (21)	2.
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mathematics (41)	5.	Mathematics (42)	5.	Mathematics (43)	5.
†Drawing (33)	3.	†Drawing (34)	3.	Metallurgy (2)	3.
Chemistry (40)	1.	Chemistry (40)	1.		
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Required		Required		Required	
Mechanics (1)	5.	Mechanics (2)	5.	Mechanics (3)	5.
Drawing (21)	2.	Drawing (22)	2.	Drawing (23)	2.
Chemistry (46)	2.	Chemistry (46)	2.	Chemistry (46)	2.
Chemistry (47)	2.			Mech. Eng. (32)	5.
Metallurgy (4)	5.				
Elective 2 to 3 hrs.		*Elective 7 to 10 hrs.*		*Elective 3 to 5 hrs.*	
Metallurgy ( )	3.	Chemistry (47)	2-3.	Chem. (47)	2 or 3.
Chemistry (17)	2.	Chem. (17)	2 or 3.	Chem. (48)	3 to 5.
		Chem. (77)	2.	Chem. (15)	4.
		Metal (4)	5.	Metal ( )	3.
		Metal (6)	5.		

FOURTH YEAR

Chem. (32)	4.	Chem. (32)	4.	Chem. (71)	4.
Mech. Eng. (18)	5.	Mech. Eng. (18)	5.	Mech. Eng. (19)	5.
Chem. (30)	3.	Chem. (30)	3.		
Elec. Eng. (5)	4.	*Elective	3.	*Elective	6.
*Elective	2.	Thesis	3.	Thesis	3.

Chemistry 78 or 79 is taken at the end of the first or second term.

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*These electives must be approved by the head of the Department of Chemistry, or in case of those students specializing in metallurgical chemistry, by the head of the Department of Metallurgy.

†For 1909-1910 only.

COURSE IN CIVIL ENGINEERING*

FOR OUTLINE OF FIRST YEAR SEE PAGE 201

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Math. (41) Calculus.	5.	Math. (42) Calculus.	5.	Math. (43) Calculus.	5.
Physics (2) Mech. and Heat.	4.	Physics (2) Elect. and Magnetism.	4.	Physics (2) Light and Sound.	3.
Civil Eng. (30) Surveying.	5.	Civil Eng. (4) Topog. Drawing.	4.	Civil Eng. (32) R. R. Surveying.	5.
Civil Eng. (31) Field Practice.	1.			Civil Eng. (33) Field Practice.	1.
Eng. Draw. (34) Descriptive Geom.	3.	Eng. Draw. (36) Descriptive Geom.	5.	Civil Eng. (6) Stereotomy.	4.
Military Drill	1.	Military Drill	1.	Military Drill	1.

SUMMER COURSE.—Civil Engineering (22) 4 weeks, of 6 days per week. Field work in surveying.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Strength Materials.	5.	Mechanics (3) Kinetics.	5.
Civil Eng. (3) Topog. Surveying.	4.	Civil Eng. (24) Timber Construction.	4.	Civil Eng. (7) Stresses.	5.
Civil Eng. (16) Roads and Streets.	4.	Civil Eng. (14) Cement Testing.	2.	Civil Eng. (10) Sanitary Eng.	5.
Elec. Eng. (31)	5.	Astronomy (5) Least Squares.	3.	Astronomy (4) Mathematical.	3.
		Architecture (33) Photography.	2.		
		Mathematics ( ) Differ. Equations.	2.		

SUMMER COURSE—Civil Engineering (23) 4 weeks, of 6 days per week. Field work in advanced surveying.

FOURTH YEAR

Civil Eng. (8) Bridge Design.	5.	Civil Eng. (25) Adv. Bridges *or* Civil Eng. (17) Railways.	5.	Civil Eng. (18) Water Supply.	5.
Civil Eng. (34) Masonry Construction.	3.	Civil Eng. (35) Masonry Structures.	3.	Civil Eng. (37) Contracts and Spec.	3.
Mech. Eng. (46)	5.	Mech. Eng. (47)	3.	Geology (24)	5.
Astronomy (6)	4.	Mech. Eng. (44) Mach. Design.	4.	Civil Eng. (36) Reinforced Concrete.	2.
		Metallurgy (12) Econ. Mineralogy.	2.		
		THESIS			

*The course as outlined above will be entered upon by freshmen, September, 1909.

COURSE IN CIVIL ENGINEERING*

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Math. (41) Calculus.	5.	Math. (42) Calculus.	5.	Math. (43) Calculus.	5.
Physics (2) Mech. and Heat.	4.	Physics (2) Elect. and Magnetism.	4.	Physics (2) Light and Sound.	3.
Civil Eng. (30) Surveying.	5.	Civil Eng. (4) Topog. Drawing.	4.	Civil Eng. (32) R. R. Surveying.	5.
Civil Eng. (31) Field Practice.	1.			Civil Eng. (33) Field Practice.	1.
Eng. Draw. (33) Proj. Drawing.	3.	Eng. Draw. (36) Descriptive Geom.	5.	Eng. Draw. (35) Descriptive Geom.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

SUMMER COURSE.—Civil Engineering (22) 4 weeks, of 6 days per week. Field work in surveying.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Strength Materials.	5.	Mechanics (3) Kinetics.	5.
Civil Eng. (3) Topog. Surveying.	4.	Civil Eng. (24) Timber Construction.	4.	Civil Eng. (7) Stresses.	5.
Civil Eng. (16) Roads and Streets.	4.	Civil Eng. (6) Stereotomy.	4.	Civil Eng. (10) Sanitary Eng.	5.
Elec. Eng. (31)	5.	Astronomy (5) Least Squares.	3.	Astronomy (4)	3.
		Architecture (33) Photography.	2.		

SUMMER COURSE.—Civil Engineering (23), 4 weeks of 6 days per week. Field work in advanced surveying.

FOURTH YEAR

Civil Eng. (8) Bridge Design.	5.	Civil Eng. (25) Adv. Bridges *or* Civil Eng. (17) Railways.	5.	Civil Eng. (18) Water Supply.	5.
Civil Eng. (34) Masonry Constr.	3.	Civil Eng. (35) Masonry Struc.	3.	Civil Eng. (10) Sanitary Eng.	5.
Mech. Eng. (46)	5.	Mech. Eng. (47)	3.	Geology (24)	5.
E. E. (6 and 7)	4.	Civil Eng. (14) Cement Testing.	2.		
		Geology (6) Economic.	3.		
		Civil Eng. (36) Reinforced Concrete.	2.		
		THESIS			

*The second, third, and fourth years as outlined above will be given during 1909-10 to present freshmen, sophomores, and juniors respectively.

COURSE IN ELECTRICAL ENGINEERING

FOR OUTLINE OF FIRST YEAR SEE PAGE 201

SUMMER TERM.—Students are required to take *two* of the following courses in shopwork in the summer term at the close of the first year: Shopwork (4), (7), and (11).

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
‡Drawing (33) Projection Drawing.	3.	‡Drawing (34) Descriptive Geometry.	3.	‡Drawing (35) Adv. Descriptive Geom.	3.
Mathematics (41) Calculus.	5.	Mathematics (42) Calculus.	5.	Mathematics (43) Calculus.	5.
Physics (31) Mechanics, Heat.	5.	Physics (32) Elect'y, Magnetism.	5.	Physics (33) Light, Sound.	5.
Shop (4, 7, or 11)	3.	Shopwork (13) Machine Work.	3.	Physics (5) Laboratory.	4.
*Electives	2 or 3.	*Electives	2 or 3.		
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Str'n'th Mat'ls, Kinet.	5.	Mechanics (3) Kinetics, Hydraulics.	5.
Physics (6) Laboratory.	5.	Physics (6) Laboratory.	5.	Mech. Eng. (32) Power Plants.	5.
Physics (4) Elect'y, Magnetism.	3.	Mech. Eng. (37) Mechanism.	4.	Mech. Eng. (28) Laboratory.	2.
Shopwork (14) Machine Work.	3.	Elec. Eng. (30) D. C. Machinery.	4.	Elec. Eng. (30) D. C. Machinery.	4.
Drawing (5) Technical.	3.			Elec. Eng. (15) A. C. Machinery.	2.

Elec. Eng. (20), (21), (22), or (23) is taken at the end of the winter term.

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‡For 1909-1910.

*Subject to the approval of the professor of Electrical Engineering.

FOURTH YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Elec. Eng. (16) A. C. Machinery.	3.	Elec. Eng. (17) A. C. Machinery.	2.	Elec. Eng. (25) Transmission.	2.
Elec. Eng. (11) Laboratory.	3.	Elec. Eng. (11) Laboratory.	3.	Elec. Eng. (11) Laboratory.	3.
Mech. Eng. (33) Engines and Boilers.	5.	Elec. Eng. (18) Elec. Design.	3.	Elec. Eng. (19) Designing.	4.
Mech. Eng. (29) Laboratory.	3.	Elec. Eng. (24) Applications.	2.	†Elec. Eng. (26) Railways.	3.
		Mech. Eng. (30) Laboratory.	2.	†Elec. Eng. (27) Telephony.	3.
		Ind. Arts (9) Mach. Design.	2.	†Elec. Eng. (28) Illumination.	3.
**Elective	3-5.	**Elective	3-5.	†Elec. Eng. (29) Wireless Telegraphy.	3.
				**Elective	3-5.

Elec. Eng. (20), (21), (22), or (23) is taken at the end of the winter term.

THESIS

COURSE IN INDUSTRIAL ARTS

FOR OUTLINE OF FIRST YEAR SEE PAGE 201

SUMMER TERM.—Shopwork Courses (7) 3 and (11) 3 are to be taken in the summer term at the close of the first year.

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
*Drawing (33) Projection Drawing.	3.	*Drawing (34) Descriptive Geometry.	3.	*Drawing (35) Adv. Descriptive Geom.	3.
Physics (2) Mechanics, Heat.	5.	Physics (2) Elect. Magnetism.	5.	Physics (2) Light, Sound.	5.
Mathematics (41) Calculus.	5.	Economics (31) U. S. Industrial Hist.	3.	Economics (32) Commercial Geog.	3.
Shopwork (3) Foundry.	2.	Shopwork (9) Adv. Pattern Making.	3.	Shopwork (4) Chipping and Filing.	3.
Economics (33) Ele. of Pol. Econ.	3.	Economics (33) Ele. of Pol. Econ.	3.	Economics (33) Ele. of Pol. Econ.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

†Alternative Course.

**Subject to the approval of the professor of Electrical Engineering.

*For 1909-1910.

THIRD YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (5) Technical.	3.	Ind. Arts (2) Designing.	3.	Ind. Arts (2) Designing.	3.
Ind. Arts (1) Tools and Machines.	3	Ind. Arts (1) Tools and Machines.	3.	Ind. Arts (1) Tools and Machines.	3.
Shopwork (13) Machine Work.	3.	Shopwork (14) Machine Work.	3.	Shopwork (15) Machine Work.	3.
Metallurgy (4) Fuels and Iron.	5.	Metallurgy (4) Steel.	2.	Mech. Eng. (32) Power Plants.	5.
Economics (48) Account. and Statistics.	2.	Economics (48) Account. and Statistics.	2.	Economics (48) Account. and Statistics.	2.
		Civil Eng. (27) Timber and Masonry.	3.		

FOURTH YEAR

Shopwork (16) Adv. Mach. Work.	3.	Elective	3.	Shopwork (17) Adv. Mach. Work.	3.
Elec. Eng. (6) Lectures.	2.	Elec. Eng. (6) Lectures.	2.		
Elec. Eng. (7) Laboratory.	2.	Elec. Eng. (7) Laboratory.	2.	Civil Eng. (21) Surveying.	3.
Ind. Arts (3) Shop Equipment.	3.	Ind. Arts (3) Shop Appliances.	3.	Ind. Arts (3) Shop Management.	3.
Ind. Arts (4) Adv. Designing.	3.	Ind. Arts (4) Adv. Designing.	3.	Ind. Arts (4) Adv. Designing.	3.
Mech. Eng. (12) Laboratory.	2.	Mech. Eng. (29) Laboratory.	2.	Mech. Eng. (30) Laboratory.	2.
*Economics (37) Ind. Org'nizat'n, etc.	3.	*Economics (38) Ind. Concen., etc.	3.	*Economics (39) Labor Organ., etc.	3.
†Economics (52) Labor Legislation.	3.	†Economics (39) Labor Organization.	3.	†Economics (53) Lagor Remuneration.	3.

THESIS

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*For 1909-1910.

†Offered in alternate years.

COURSE IN MANUAL TRAINING

FOR OUTLINE OF FIRST YEAR SEE PAGE 201

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (34) Descriptive Geom.	3.	Drawing (35) Adv. Descrip. Geom.	3.	Drawing (35) Shades, Shadows.	3.
Physics (2) Mechanics, Heat.	5.	Physics ( ) Elect'y, Magnetism.	5.	Physics (2) Light, Sound.	5.
Shopwork (7) Woodwork.	3.	Shopwork (9) Adv. Pattern Making.	3.	Shopwork (8) Cabinet Work.	3.
Shopwork (3) Foundry.	3.	Shopwork (11) Forging.	3.	Shopwork (12) Adv. Forging.	3.
Education (1) Elem. Psychology.	3.	Education (1) Elem. Psychology.	3.	Education (1) Elem. Psychology.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Drawing (5) Technical.	3.	Ind. Arts (2) Designing.	3.	Ind. Arts (2) Designing.	3.
Ind. Arts (1) Tools and Machine.	3.	Ind. Arts (1) Tools and Machines.	3.	Ind. Arts (1) Tools and Machines.	3.
Shopwork (4) Chipping, Filing.	3.	Shopwork (13) Machine Work.	3.	Shopwork (14) Machine Work.	3.
History (1) U. S. Political.	3.	History (1) U. S. Political.	3.	History (1) U. S. Political.	3.
*Chemistry (20) Quantitative.	4.	*Chemistry (20) Quantitative.	4.	*Chemistry (20) Quantitative.	4.
*Chemistry (21) Physical.	2.	*Chemistry (21) Physical.	2.	*Chemistry (21) Physical.	2.
*Physics (5) Laboratory.	5.	*Physics (5) Laboratory.	5.	*Physics (5) Laboratory.	5.

FOURTH YEAR

Shopwork (15) Adv. Mach. Work.	3.	Shopwork (16) Adv. Machine Work.	3.	Mech. Eng. (32) Power Plants.	5.
Elec. Eng. (6) Lectures.	2.	Elec. Eng. (6) Lectures.	2.	Mech. Eng. (28) Laboratory.	2.
Elec. Eng. (7) Laboratory.	2.	Elec. Eng. (7) Laboratory.	2.		
Education (5) Science of Educ.	3.	Education (5) Science of Educ.	3.	Education (5) Science of Educ.	3.
Polit. Science (1) Pol. Inst. of U. S.	3.			Electives	5-7.
Electives	2-5.	Electives	5-7.		

THESIS

*Students take either Chemistry (20) and (21) or Physics (5).

COURSE IN MECHANICAL ENGINEERING

FOR OUTLINE OF FIRST YEAR SEE PAGE 201

SUMMER TERM.—Students are required to take *two* of the following courses in shopwork in the summer term at the close of the first year: Shopwork (4), (7), and (11).

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
*Drawing (33) Projections.	3.	*Drawing (34) Descriptive Geom.	3.	*Drawing (35) Shades, Shadows.	3.
Mathematics (41) Calculus.	5.	Mathematics (42) Calculus.	5.	Mathematics (43) Calculus.	5.
Physics '31) Mechanics, Heat.	5.	Physics (32) Elect'y, Magnetism.	5.	Physics (32) Light, Sound.	5.
Required Elec. See Foot-note.†	2-3.	Required Elec. See Foot-note.†	2-3.	Physics (7) Laboratory.	3.
Shopwork (4, 7, 9, or 11)	3.	Shopwork (4, 9, or 11)	3.	Shopwork (13) Machine Work.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Str'n'th Mat'ls, Kinet.	5.	Mechanics (3) Kinetics, Hydraulics.	5.
*Mech. Eng. (12) Laboratory.	2.	Mech. Eng. (3) Mechanism.	5.	Mech. Eng. (3) Mechanism.	2.
Drawing (5) Technical.	3.	Civil Eng. (27) Timber, Masonry.	3.	Architecture (33) Photography.	2.
Metallurgy (4) Fuels and Iron.	5.	Metallurgy (4) Steel.	2.	Civil Eng. (19) Trusses.	5.
Shopwork (14) Machine Work.	3.	Shopwork (15) Adv. Machine Work.	4.	Mech. Eng. (32) Power Plants.	5.
Mathematics (11) Diff. Equations.	1.				

Mech. Eng. (38), (39), (40), or (41) is taken at the end of the winter term.

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*For 1909-1910 only.

†For students who are deficient in English in the opinion of the Department of English, English (4), or (5) and (6), or (8), or (26) and (27), or (22) and (23) *must* be elected. Other students may elect from the above English, or American History (1), or Chemistry (20), or Economics (30), (31) or (33), or European History (1) and (2), or French (2), or German (4) or (10), or other advanced courses in French or German subject to the approval of the head of the department.

FOURTH YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Mech. Eng. (33) Engines and Boilers.	5.	Mech. Eng. (34) Thermodynamics.	5.	Mech. Eng. (21) Thesis.	5.
Mech. Eng. (27) Laboratory.	5.	Mech. Eng. (14) Laboratory.	5.	Mech. Eng. (15) Laboratory.	4.
Mech. Eng. (18) Machine Design.	5.	Mech. Eng. (18) Machine Design.	5.	Mech. Eng. (19) Machine Design.	5.
Elec. Eng. (5) Dynamo Mach.	4.	Elec. Eng. (5) Dynamo Mach.	4.	Mech. Eng. (31) Hydraulic Mach.	2.
				†Ind. Arts (5) Shop Appliances.	3.
				†Mech. Eng. (45) Steam Turbines.	3.

THESIS

Mech. Eng. (38), (39), (40), or (41) is taken at the end of the winter term.

†Alternative Course.

COURSE IN MINE ENGINEERING

FOR OUTLINE OF FIRST YEAR SEE PAGE 201

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
*Drawing (33) Projections.	3.	*Drawing (34) Descriptive Geom.	3.	*Drawing (35) Shades, Shadows.	3.
Mathematics (41) Calculus.	5.	Mathematics (42) Calculus.	5.	Mathematics (43) Calculus.	5.
Physics (2) Mechanics, Heat.	3.	Physics (2) Elect'y, Magnetism.	3.	Physics (2) Light, Sound.	3.
Chemistry (20)	5.				
Chemistry (40) Laboratory.	5.	Metallurgy (5) Laboratory.	5.	Metallurgy (5) Laboratory.	5.
Shopwork (7) Woodwork.	2.	Shopwork (11) Forging.	2.	Metallurgy (2) Mineralogy.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

THIRD YEAR

Mechanics (1) Statics.	5.	Mechanics (2) Str'n'th Mat'ls, Kinet.	5.	Mechanics (3) Kinetics, Hydraulics.	5.
Metallurgy (4) Fuels and Iron.	5.	Metallurgy (4) General.	5.	Metallurgy (3) Deter. Mineralogy.	5.
Mine Eng. (4) Mine Surveying.	5.	Metallurgy (6) Assaying.	5.	Civil Eng. (19) Trusses.	5.
Metallurgy (5)	3.	Mine Eng. (7) Surveying.	1.	Advanced Met. Lab. ( )	3.
		Met. Problems	2.		

*For 1909-1910 only.

FOURTH YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Mine Eng. (5) Mine Engineering.	5.	Mine Eng. (5) Mine Engineering.	5.	Mine Eng. (5) Mine Engineering.	5.
Geology (2) General.	5.	Geology (6) Economic.	3.	Mech. Eng. (36) Laboratory.	5.
Metallurgy (8) Ore Dressing.	2.	Metallurgy (7) Metal Construction.	3.	Mine Eng. (6) Plans and Spec.	5.
Elec. Eng. (6) Lectures.	2.	Elec. Eng. (6) Lectures.	2.	Architecture (33) Photography.	2.
Elec. Eng. (7) Laboratory.	2.	Elec. Eng. (7) Laboratory.	2.		
		Geology (7) Petrography.	2.		
		THESIS			

TWO-YEAR COURSES

SHORT COURSE IN CLAY-WORKING

FIRST YEAR

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (3) Inorganic.	4.	Chemistry (3) Inorganic.	4.	Chemistry (45) Quantitative.	4.
Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.
Mathematics (3) Plane Geom.	5.	Mathematics (13) Space Geom.	5.	Mathematics (14) Trigonometry.	5.
Drawing (2) Lettering.	3.	Drawing (38) Projections.	3.	Drawing (39) Drafting.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SUMMER TERM.—Students are required to take Shopwork (7) and (11) in the summer term at the end of the first year. But they may be excused from this where they are able to obtain positions in some ceramic establishment for the summer; and on presentation of a satisfactory certificate, endorsed by the head of the department, work in a ceramic factory during the summer may be counted as equivalent to the summer shop course.

SECOND YEAR

Ceramics (1) Laboratory.	5.	Ceramics (2) Laboratory.	5.	Ceramics (19) Laboratory.	5.
Ceramics (4) Raw Materials.	5.	Ceramics (5) Preparation and Mfg.	5.	Ceramics (6) Drying and Burning.	5.
Physics (1) Elementary.	5.	Physics (1) Elementary.	5.	Ceramics (27)	3.
Ceramics (20) Mfg. Bodies.	2.	Ceramics (21) Mfg. Glazes.	2.	Ceramics (23) Mfg. Colors.	4.
Military Drill	1.	Military Drill	1.	Military Drill	1.

SHORT COURSE IN INDUSTRIAL ARTS

FIRST YEAR

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

FIRST TERM		SECOND TERM		THIRD TERM	
Drawing (24) Freehand.	1.	Drawing (25) Freehand.	1.	Drawing (26) Freehand.	1.
Drawing (2) Lettering.	3.	Drawing (38) Projections.	3.	Drawing (39) Drafting.	3.
Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.
Mathematics (3) Plane Geometry.	5.	Mathematics (13) Spice Geometry.	5.	Mathematics (14) Trigonometry.	5.
Shopwork (7) Pattern Making.	3.	Shopwork (9) Adv. Pattern Making.	3.	Shopwork (11) Forging.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

Ind. Arts (8) Machine Drawing.	3.	Drawing (34) Descriptive Geom.	3.	Drawing (35) Shades, Shadows.	3.
Ind. Arts (1) Tools, Machines.	3.	Ind. Arts (1) Tools, Machines.	3.	Ind. Arts (1) Tools, Machines.	3.
Physics (1) Elementary.	5.	Physics (1) Elementary.	5.	Geology (1) Phys. Geography.	5.
Shopwork (4) Chipping, Filing.	3.	Shopwork (13) Machine Work.	3.	Shopwork (14) Adv. Machine Work.	3.
Shopwork (3) Foundry.	2.	Ind. Arts (2) Designing.	3.	Ind. Arts (2) Designing.	3.
Military Drill	1.	Military Drill	1.	Military Drill	1.

SHORT COURSE IN MINING

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.
Mathematics (3) Geometry.	5.	Mathematics (13) Space Geometry.	5.	Mathematics (14) Trigonometry.	5.
Physics (1) Elementary.	5.	Physics (1) Elementary.	5.	Geology (1) Phys. Geography.	5.
Military Drill	1.	Military Drill	1.	Military Drill	1.
Gymnasium	1.	Gymnasium	1.	Gymnasium	1.

SECOND YEAR

Drawing (2) Lettering.	3.	Drawing (38) Projections.	3.	Drawing (39) Drafting.	3.
Drawing (27) Freehand.	2.	Geology (4) Elementary.	5.	Shopwork (11) Forging.	3.
Chemistry (3) Inorganic.	4.	Chemistry (3) Inorganic.	4.	Metallurgy (9) Mineral Chemistry.	5.
Mine Eng. (1) Mine Surveying.	5.	Mine Eng. (2) Ventilat. Haulage.	5.	Mine Eng. (3) Mine Operating.	5.
		Mine Eng. (7) Surveying.	1.		
Military Drill	1.	Military Drill	1.	Military Drill	1.

COLLEGE OF LAW

FACULTY

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University.

GEORGE W. RIGHTMIRE, M. A., ACTING DEAN, Professor of Law.

WILLIAM HERBERT PAGE, B. A., LL. M., SECRETARY, Professor of Law.

*GEORGE W. KNIGHT, Ph. D., Professor of Law.

*EMILIUS O. RANDALL, Ph. B., LL. M., Professor of Law.

EDGAR B. KINKEAD, M. A., Professor of Law, Judge of Common Pleas Court.

JOHN A. SCHAUCK, M. A., LL. D., Professor of Law, Judge of Supreme Court.

GILBERT H. STEWART, B. A., Professor of Law.

EDMOND B. DILLON, M. A., Professor of Law, Judge of Common Pleas Court.

JAMES M. BUTLER, LL. B., Professor of Law.

ALONZO H. TUTTLE, M. A., LL. B., Professor of Law.

CARMI A. THOMPSON, B. Ph., LL. B., Instructor in Law of Mortgages and Liens and Suretyship.

HARRY H. MCMAHON, M. A., LL. B., Franklin County Bar, Instructor in Law of Negotiable Instruments and Partnership, substituting for Professor Randall, 1908-1909.

ARTHUR E. ADDISON, B. Ph., LL. B., Franklin County Bar, Instructor in Law of Real Property.

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*Absent on leave 1908-1909.

BERT W. GEARHART, Franklin County Bar, Instructor in Law of Bankruptcy.

WILLIAM B. COCKLEY, B. A., L L. B., Instructor in Law.

ORVILLE P. COCKRILL, B. Ph., LL. B., Assistant in Moot Court.

CHARLES E. BLANCHARD, LL. B., Assistant Professor of English.

HON. D. K. WATSON, Ex-Attorney General of Ohio, Ex-Congressman and late of the Federal Criminal Code Commission. Special Lecturer for 1908-1909 on the Federal Constitution.

ORGANIZATION

The College of Law offers a course of study leading to the degree of Bachelor of Laws, and in connection with the College of Arts, Philosophy, and Science a combined course leading to the degree of Bachelor of Laws and Bachelor of Arts in six years.

ADMISSION

GENERAL REQUIREMENT

Applicants for admission must be at least eighteen years of age.

REQUIREMENTS BY UNITS†

Applicants to be admitted to full standing must obtain credit by examination or certificate for thirteen* units, chosen from the first five groups given below and must also satisfy the requirements of paragraph F.

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†A unit is a course of study covering a school year of not less than thirty-five weeks, with five periods of at least forty-five minutes each per week.

*For certification by the University to the Supreme Court for admission to the State Bar Examination of Ohio the candidate must meet the requirements for the College of Arts, Philosophy, and Science. See p. 158.

No applicant will be accepted who is deficient or conditioned in required entrance work representing in the aggregate more than two units. This rule does not apply to the college work indicated as requisite for a degree. Work of collegiate grade may be made up at any time before the Friday preceding Commencement Day.

(A) ENGLISH GROUP

Two units chosen from the following:

English Composition and Rhetoric	1 unit
English Classics	1 unit
English Literature	1 unit

(B) HISTORY GROUP

Two units chosen from the following:

Civil Government	½ or 1 unit
United States History	½ or 1 unit
General History	½ or 1 unit
Greek and Roman History	½ or 1 unit
English History	½ or 1 unit

(C) MATHEMATICS GROUP

Two units chosen from the following:

Algebra, through Quadratics	1 unit
Algebra, beyond Quadratics	½ unit
Plane Geometry	1 unit
Solid Geometry	½ unit

(D) SCIENCE GROUP

One unit chosen from the following:

Physics	1 unit
Physical Geography	½ or 1 unit
Botany	½ or 1 unit
Chemistry	1 unit
Physiology	½ or 1 unit
Zoology	½ or 1 unit
Geology	½ or 1 unit

(E) FOREIGN LANGUAGE GROUP

Six units chosen from the following, or extra units chosen from the preceding groups, and sufficient units from the following to aggregate six units:

Latin	2, 3, or 4 units
Greek	2, 3, or 4 units
German	2, 3, or 4 units
French	2, 3, or 4 units
Spanish	2, 3, or 4 units

A single unit of a foreign language will not be counted toward entrance.

The extent and character of the work required in each subject mentioned above is to be found on page 112 and following.

(F) COLLEGE WORK

In addition to the foregoing requirements, each candidate for a degree must submit satisfactory evidence that he has successfully pursued a course of study equivalent to the first two years of the course leading to a degree in the College of Arts, Philosophy, and Science of this University.

The candidate will be subject to examination in such work. If this work has been done in a college or university of approved standing, the certificate of such college or university will be accepted as a substitute for such examination.

ADMISSION WITH ADVANCED STANDING

(a) Applicants for admission with advanced standing must first satisfy the foregoing entrance requirements in the methods described above. This should be done through the Entrance Board.

(b) By presentation of satisfactory certificates or by examination such applicants may then obtain any advanced credits in Law to which they are entitled. Applicants for admission to the second year must present satisfactory evidence of having completed the work of the first year of the course of Law, or its equivalent; an applicant for admission to the third year must present satisfactory evidence of having completed the work of the first and second years of the

course of Law or its equivalent. All law credits must be submitted to the Secretary of the College of Law for adjustment.

In order to obtain the full benefit of the arrangement and detail of the course of study, a student should enter at the beginning of the first year aand attend regularly until the completion of the third year.

Those who are unable to do this are earnestly requested to enter promptly at the beginning of the year, or if special work is desired in the second semester, at the beginning of such semester.

Those entering in the middle of a semester are greatly retarded both by the amount of work actually in arrears and also by the fact that the presentation of advanced work must be given on the assumption that work already passed is properly understood by the student.

ADMISSION TO THE COURSE LEADING TO A CERTIFICATE

Requirements for admission of students who are not candidates for a degree are the same as the requirements for admission of candidates for a degree except that the student need not offer the work described in paragraph F and that his certificate need not come from an accredited or recognized High School. These requirements do not necessarily meet the requirements of the Ohio Supreme Court for admission to the State Bar Examination.

ADMISSION TO SPECIAL COURSES

A person twenty-one years of age, or over, who desires to pursue a special line of work and does not desire to become a candidate for a degree, may be admitted by vote of the Executive Committee to such classes as he is qualified to enter; provided, that if he afterward become a candidate for a degree or certificate in law, he must pass the require-

ments for admission at least one year before the degree or certificate is conferred.

Persons wishing a knowledge of legal principles for general business purposes only, or as a part of a liberal education, but not intending to apply for a degree or to take a full course, may be admitted at any time as special students, and may avail themselves of such advantages of the College as they deem expedient, subject in each case to the approval of the faculty of the work proposed to be undertaken. Their convenience will not be taken into consideration in arranging classes, and they must make satisfactory arrangements as to hours of recitation, etc., with the Dean. No certificate of any kind will be issued to such students.

DEGREE

The Degree of Bachelor of Laws (LL.B.) will be conferred on all who being at least twenty-one years of age and having met the requirements necessary for entrance for a degree, pass satisfactorily the examinations at the close of the third year, after having done at least that year's work in the College of Law at the University.

CERTIFICATES

Those who have completed the studies in this College, but have not complied with the requirements for a degree, will be given an official certificate showing the work done, signed by the President and Secretary of the Board of Trustees and the President of the University.

No distinction is made between the candidates for a degree and other regular students while in attendance at this College. The two classes of students do the same work, recite together, take the same examinations, and are held to the same standard of work.

The distinction between the two classes of students consists entirely in the two following respects:

First—The standard of admission for candidates for a degree is higher than that for those who are not candidates for a degree.

Second—Candidates for a degree who have fulfilled all the entrance requirements and have completed the course of study in a satisfactory manner receive a diploma conferring the degree. Regular students, who are not candidates for a degree, receive under similar circumstances a formal certificate of the completion of the course.

ADMISSION TO THE BAR

The regular Supreme Court examinations for admission to the Bar are held on the first Tuesday in June and December of each year. Students who have not regularly attended the full course of three years at this College, or who have not been examined here in all the subjects required in the undergraduate course, or who have not presented acceptable certificates from some recognized school or college of law covering the subjects not pursued here by them, are required to pass this examination before they receive the degree of Bachelor of Laws or the certificate mentioned above.

COURSES OF INSTRUCTION

FIRST YEAR

ELEMENTARY LAW. Five hours a week, first semester. Blackstone; Robinson's Elementary Law; Walker's American Law. Professor TUTTLE.

CRIMINAL LAW AND PROCEDURE. Three hours a week, first semester. May's Criminal Law. MR. COCKLEY.

CONTRACTS. Three hours a week, throughout the year. Anson on Contracts (Huffcut's Edition, 1906), Huffcut and Woodruff's Cases on Contracts (Second Edition), and selected cases. Professor PAGE.

TORTS. Two hours a week, first semester; three hours a week, second semester. Bigelow on Torts (Eighth Edition); Erwin's Cases on Torts. Professor TUTTLE.

PERSONAL PROPERTY. Two hours a week, first semester. Schouler's Law of Personal Property (abridgement). Professor RIGHTMIRE.

DEBATE AND ORATORY. One hour a week throughout the year. Assistant Professor BLANCHARD.

AGENCY. Two hours a week, second semester. Mechem on Agency and selected cases. Mr. COCKLEY.

DOMESTIC RELATIONS. Three hours a week, second semester. Tiffany, Persons and Domestic Relations. Professor RIGHTMIRE.

SALES. Two hours a week, second semester. Tiffany's Law of Sales of Personal Property. Professor RIGHTMIRE.

REAL PROPERTY I. Two hours a week, second semester. Tiffany on Real Property, Blackstone Book II and selected cases. Mr. COCKLEY.

SECOND YEAR

BAILMENTS. Two hours a week, first semester. Van Zile, Bailments and Carriers. Professor RIGHTMIRE.

NEGOTIABLE INSTRUMENTS. Four hours a week, first semester. Tiedeman's Commercial Paper and Randall's Annotations on the Negotiable Instruments Act. Mr. MCMAHON.

EVIDENCE. Three hours a week throughout the year. Greenleaf, Sixth Edition by Wigmore. Professor DILLON.

PLEADING. Three hours a week, throughout the year. Phillips on Pleading. Professor KINKEAD.

REAL PROPERTY II. Three hours a week, first semester. Tiffany on Real Property, and selected cases. Mr. ADDISON.

REAL PROPERTY III. One hour a week, second semester. Tiffany on Real Property, and selected cases. Mr. ADDISON.

PARTNERSHIP. Two hours a week, second semester. Mechem on Partnership. Mr. MCMAHON.

LEGAL ETHICS. One hour a week, second semester. Professor KINKEAD.

MOOT COURT. Two hours a week, second semester. Professor KINKEAD and Mr. COCKERILL.

WILLS. Two hours a week, second semester. Page on Wills, and selected cases. Professor PAGE.

PROBATE PRACTICE. One hour a week, second semester. Kinkead's Probate Law and Practice. Professor KINKEAD.

INSURANCE. Two hours a week, second semester. Vance on Insurance and selected cases. Professor PAGE.

PATENT AND COPYRIGHT LAW. Eight Lectures, second semester. Professor RIGHTMIRE.

DEBATING. One hour a week throughout the year. Assistant Professor BLANCHARD.

THIRD YEAR

CONSTITUTIONAL LAW. Three hours a week, first semester. Black's Constitutional Law and Boyd's Cases. Professor TUTTLE.

THE FEDERAL CONSTITUTION. Ten lectures in the first semester. HON. D. K. WATSON.

CORPORATIONS (Private). Two hours a week throughout the year. Taylor on Private Corporations. Professor PAGE.

EQUITY JURISPRUDENCE. Four hours a week, first semester. Merwin, The Principles of Equity and Equity Pleadings. Professor SHAUCK.

QUASI CONTRACTS. Two hours a week, first semester Woodruff's Annoted Cases on Quasi Contracts. Professor PAGE.

REAL PROPERTY IV. Two hours a week, first semester. Tiffany on Real Property, Part IV. Mr. THOMPSON.

MOOT COURT. Two hours a week, first semester. Professor KINKEAD and Mr. COCKERILL.

FEDERAL PRACTICE. Two hours a week, second semester. Hughes' Federal Procedure. Professor STEWART.

CORPORATIONS (Municipal). Three hours a week, second semester. Abbott on Public Corporations. Professor BUTLER.

SURETYSHIP. Two hours a week, second semester. Stearns, The Law of Suretyship. Mr. THOMPSON.

TRIAL PRACTICE. Two hours a week, second semester. Kinkead's Code Pleading. Professor KINKEAD.

CIRCUIT AND SUPREME COURT PRACTICE. Fifteen Lectures, first half of second semester. Professor SHAUCK.

DAMAGES. Two hours a week, second semester. Mechem's Cases on Damages. Professor TUTTLE.

CONFLICT OF LAWS. (Private International Law.) Two hours a week, second semester. Minor, Conflict of Laws. Professor TUTTLE.

BANKRUPTCY. Ten Lectures, second half of second semester. Mr. GEARHEART.

SPECIAL INFORMATION

The courses in Patent and Copyright Law and Debate and Oratory are optional. In the second semester of the second year the student must elect either Moot Court or Insurance. In the second semester of the third year the student must elect either Conflict of Laws or Damages. All other studies are required. Every regular student is required to take at least fifteen hours per week in recitation work.

THE ARTS-LAW COURSE

A candidate for the degree of Bachelor of Arts while registered in the College of Arts, Philosophy, and Science, may also register in the College of Law as a candidate for the degree of Bachelor of Laws, provided that at the time of seeking such registration in the College of Law (1) he has 135 term hours to his credit in the College of Arts, Philosophy, and Science, including the requisite optional subjects and exclusive of the credit hours in Military Drill and Physical Training, and (2) has been a student in the College of Arts, Philosophy, and Sience, of this University at least one year, and (3) has included (or with the further work in the College of Arts, Philosophy, and Science mentioned in the next paragraph shall complete) sufficient courses to amount to thirty term hours in one or more of the five subjects: American History, European History, Economics, Sociology, Political Science.

A student so registered in the two colleges must during his first year of double registration complete sufficient further work in the College of Arts, Philosophy, and Science to make his credits in that college aggregate 150 term hours, exclusive of the credit hours in Military Drill and Physical Training. When he has done this and has completed in the College of Law the first year of the course for the degree of Bachelor of Laws, he will be recommended for the degree of Bachelor of Arts; and when he has completed the second and third years of such course in the College of Law, he will be recommended for the degree of Bachelor of Laws.

Application to enter the combined course must be filed with the Dean of the Arts College before registration day at the beginning of the year in which the student is eligible to enter the combined work.

COLLEGE OF PHARMACY

FACULTY AND OTHER INSTRUCTORS

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT of the University.

GEORGE BEECHER KAUFFMAN, B. Sc., Pharm D., DEAN, Professor of Pharmacy.

CLAIR ALBERT DYE, G. PH., PH. D., SECRETARY, Associate Professor of Pharmacy.

SIDNEY AUGUSTUS NORTON, PH. D., LL. D., Emeritus Professor of Chemistry.

NATHANIEL WRIGHT LORD, E. M., Professor of Metallurgy and Mineralogy.

ALBERT MARTIN BLEILE, M. D., Professor of Anatomy and Physiology.

JOSEPH VILLIERS DENNEY, B. A., Professor of English.

WILLIAM MCPHERSON, D. Sc., PH. D., Professor of Chemistry.

CHARLES SMITH PROSSER, D. Sc., PH. D., Professor of Geology.

JOHN ADAMS BOWNOCKER, D. Sc., Professor of Inorganic Geology.

LEWIS A. RHOADES, PH. D., Professor of Germanic Languages and Literatures.

CHARLES BRADFIELD MORREY, B. A., M. D., Professor of Bacteriology.

GEORGE WASHINGTON MCCOARD, M. A., Professor of Mathematics.

WILLIAM EDWARDS HENDERSON, PH. D., Professor of Inorganic and Physical Chemistry.

CHARLES WILLIAM FOULK, B. A., Professor of Analytical Chemistry.

JOHN HENRY SCHAFFNER, M. A., M. Sc., Associate Professor of Botany.

WILLIAM LUCIUS GRAVES, M. A., Associate Professor of English.

SAMUEL EUGENE RASOR, M. A., Associate Professor of Mathematics.

EUGENE FRANKLIN MCCAMPBELL, B. S., Associate Professor of Bacteriology.

CHARLES LINCOLN ARNOLD, M. Sc., Assistant Professor of Mathematics.

JAMES R. WITHROW, PH. D., Assistant Professor of Chemistry.

ORGANIZATION

The College of Pharmacy offers two courses of study:
The Four-Year Course.
The Two-Year Course.

ADMISSION

GENERAL REQUIREMENTS FOR ADMISSION

Applicants for admission must be at least sixteen years of age. The College is open on equal terms to both sexes.

REQUIREMENTS OF THE OHIO BOARD OF PHARMACY

On October 13, 1904, the Ohio Board of Pharmacy fixed the minimum requirement for admission to Schools and Colleges of Pharmacy by resolution, as follows:

Resolved, That on and after July 1st, 1905, no school or college of pharmacy shall be recognized as in good standing by the Ohio Board of Pharmacy, which does not require of all applicants as a minimum condition of admission, a common school education, or the equivalent thereof, which shall include one year in a High School of the first grade

(Ohio), or an academy, legally constituted, providing a course of study of not less than four years.

Later, in explanation of the above resolution, the following statement was issued: In order to dispel any doubt as to the meaning of the term "equivalent" to one year in a High School of first grade (Ohio), used in the resolutions of October 13th, 1904, the Board hereby specifies a minimum equivalent as embracing one year of instruction in each of the following branches: Algebra, English, Natural Science, and History (United States or General).

Any school of pharmacy may admit to a course in pharmacy an applicant who has received instruction in the branches herein named in a high school, academy, or other educational institution for a period of one year.

By order of the Board of Pharmacy.

W. R. OGIER, *Secretary.*

COLUMBUS, OHIO, April 1st, 1905.

ADMISSION TO THE COURSE LEADING TO A CERTIFICATE *

In order to conform to the requirements of the Board, applicants for admission to the short course must present certificates showing instruction in the following:

English, one year.
Algebra, one year.
History (United States or General), one year.
Natural Science, one year.

The requirements in Natural Science may be met by any of the following or by combination of them: Physical Geography, Physics, Physiology, Chemistry, Botany.

Applicants who are slightly deficient in these requirements will be given until the end of the first year to remove their deficiency.

Candidates for entrance should secure certificates from their school authorities describing in full the work completed. These certificates should, if possible, be sent in

*For outline of the Short Course, see page 231.

advance to the Entrance Board. Candidates presenting themselves without certificates must come in time for the scheduled examinations.

SPECIAL SHORT COURSE STUDENTS

Students who have completed the work of the first year of the Short Course, and who wish to pursue certain of the studies of the Long Course, will be permitted to do so provided they are able to convince the Executive Committee and the Entrance Board of their ability to carry the work desired. Such students shall be classified as special students in the Short Course.

ADMISSION TO THE COURSE LEADING TO A DEGREE

REQUIREMENTS BY UNITS*

Applicants to be admitted to full standing must obtain credit by examination or certificate for eleven units, chosen from the five groups which follow. No applicant will be accepted who is deficient or conditioned in required entrance work representing in the aggregate more than three units.

(A) ENGLISH GROUP

Two units chosen from the following:

English Composition and Rhetoric	1 unit
English Classics	1 unit
English Literature	1 unit

(B) HISTORY GROUP

Two units chosen from the following:

Civil Government	½ unit
United States History	½ or 1 unit
Mediæval and Modern or General History	½ or 1 unit
Greek and Roman History	½ or 1 unit
English History	½ or 1 unit

* A unit is a course of study covering a school year of not less than thirty-five weeks, with four or five periods of at least forty-five minutes each per week.

(C) MATHEMATICS GROUP

Two units chosen from the following:

Algebra, through Quadratics	1 unit
Algebra, beyond Quadratics	½ unit
Plane Geometry	1 unit
Solid Geometry	½ unit

(D) SCIENCE GROUP

Two units chosen from the following:

Physics	1 unit
Physical Geography	½ or 1 unit
Botany	½ or 1 unit
Chemistry	1 unit
Physiology	½ unit
Zoology	½ or 1 unit
Geology	½ unit
Astronomy	½ unit
Elements of Agriculture	½ unit

(E) FOREIGN LANGUAGE GROUP

Two units chosen from the following:

Latin	2, 3, or 4 units
Greek	2, 3, or 4 units
German	2, 3, or 4 units
French	2, 3, or 4 units
Spanish	2, 3, or 4 units

(F) UNITS AT LARGE

One unit chosen, in addition to above, from any group.

A single unit of a foreign language will not be counted toward entrance.

The extent and character of the work required in each subject mentioned above is to be found on page 112 and following.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work and do not desire to become candidates for degrees, will be admitted on the conditions stated on page 110.

ADMISSION TO ADVANCED STANDING

For admission to advanced standing in this College, see requirements as stated on page 109.

COURSES

Two courses of study are offered in this college, viz.: The Short Course, extending over a period of two collegiate years; and the Long Course, or the Course Leading to a Degree, extending over a period of four collegiate years. The object of the Short Course is to train students for the general work of the dispensing pharmacist. It fully meets the requirements of the State Board of Pharmacy, and students completing it find no difficulty in securing registration. The Long Course, on the other hand, furnishes much more extensive and more thorough training, thus enabling the graduate to successfully follow any line of chemical or pharmaceutical work.

SHORT COURSE

On the satisfactory completion of this course the student is granted a certificate of Pharmaceutical Chemist.

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (3)	4.	Chemistry (3)	4.	Chemistry (45)	4.
Latin (26)	4.	Latin (26)	4.	Latin (26)	4.
Physics (1)	5.	Physics (1)	5.	Botany (1)	5.
Pharmacy (6)	4.	Pharmacy (7)	6.	Pharmacy (8)	6.
Cadet Service (Men)		Cadet Service (Men)		Cadet Service (Men)	
Physical Training (Women)		Physical Training (Women)		Physical Training (Women)	

SECOND YEAR

Pharmacy (12)	3.	Pharmacy (13)	3.	Pharmacy (14)	3.
Chemistry (34)	5.	Chemistry (34)	5.	Pharmacy (21)	4.
Pharmacy (9)	6.	Pharmacy (10)	6.	Pharmacy (11)	6.
Physiology (2)	3.	Pharmacy (18)	3.	Physiology (5)	2.
Bacteriology (1)	2.	Bacteriology (1)	2.	Pharmacy (19)	3.
Cadet Service (Men)		Cadet Service (Men)		Cadet Service (Men)	
Physical Training (Women)		Physical Training (Women)		Physical Training (Women)	

THE COURSE LEADING TO A DEGREE

Degree—Bachelor of Science in Pharmacy.

NOTE.—The figure in parenthesis following the name of each study indicates the number of the study in its department; the other figure indicates the number of credit hours.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (7 or 44)	4.	Chemistry (7 or 44)	4.	Chemistry (12)	4.
Latin (26) or German (1)	4.	Latin (26) or German (1)	4.	Latin (26) or German (1)	4.
Mathematics (21)	3.	Mathematics (22)	3.	Mathematics (23)	3.
English (1)	2.	English (2)	2.	English (3)	2.
Botany (37)	4.	Botany (37)	4.	Botany (37)	4.
Cadet Service (Men)		Cadet Service (Men)		Cadet Service (Men)	
Physical Training (Women)		Physical Training (Women)		Physical Training (Women)	

SECOND YEAR

Chemistry (20)	4.	Chemistry (20)	4.	Chemistry (20)	4.
Pharmacy (6)	4.	Pharmacy (7)	6.	German (2)	4.
Physics (11)	3.	Physics (11)	3.	Pharmacy (8)	6.
Chemistry (21)	2.	Chemistry (21)	2.	Physics (11)	3.
Chemistry (40)	1.	Chemistry (40)	1.	Chemistry (21)	2.
Drawing (2)	3.				
Drawing (24)	1.	Drawing (25)	1.		
Cadet Service (Men)		Cadet Service (Men)		Cadet Service (Men)	
Physical Training (Women)		Physical Training (Women)		Physical Training (Women)	

THIRD YEAR

Pharmacy (9)	6.	Pharmacy (10)	6.	Pharmacy (11)	6.
Pharmacy (12)	3.	Pharmacy (13)	3.	Pharmacy (14)	3.
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Bacteriology (1)	2.	Bacteriology (1)	2.	Chemistry (46)	2.
Chemistry (46)	2.	Chemistry (46)	2.	Chemistry (47)	2.
Chemistry (47)	2.	Chemistry (47)	2.	Physiology (5)	2.

FOURTH YEAR

Geology (2)	5.	Geology (6)	3.	Pharmacy (21)	4.
Pharmacy (15)	5.	Pharmacy (16)	5.	Pharmacy (17)	5.
Pharmacy (20)	3.	Pharmacy (19)	3.	Metallurgy (2)	3.
Thesis		Thesis		Thesis	
				Elective five hours	

COLLEGE OF VETERINARY MEDICINE

FACULTY AND INSTRUCTORS

WILLIAM OXLEY THOMPSON, D. D., LL. D., PRESIDENT.

DAVID STUART WHITE, D. V. M., DEAN, and Professor of Veterinary Medicine.

SEPTIMUS SISSON, S. B., V. S., SECRETARY, and Professor of Comparative Anatomy.

ALBERT MARTIN BLEILE, M. D., Professor of Anatomy and Physiology.

CHARLES BRADFIELD MORREY, B. A., M. D., Professor of Bacteriology.

OSCAR ERF, B. Sc. (Agr.), Professor of Dairying.

FREDERICK RUPERT MARSHALL, B. Sc. (Agr.), Professor of Animal Husbandry.

JOHN H. MCNEIL, M. V. D., Professor of Surgery and Obstetrics.

OSCAR VICTOR BRUMLEY, V. S., Associate Professor of Veterinary Medicine.

EUGENE F. MCCAMPBELL, S. B., Associate Professor of Bacteriology.

JAMES MCILVAINE PHILLIPS, M. D., Associate Professor of Veterinary Medicine.

FRANCIS LEROY LANDACRE, B. A., Professor of Zoology and Entomology.

WILLIAM LLOYD EVANS, PH. D., Associate Professor of Chemistry.

ALBERT D. FITZGERALD, B. Sc., D. V. M., Assistant Professor of Comparative Anatomy and Pathology.

ADMISSION

Applicants for admission must be at least seventeen years of age.

REQUIREMENTS BY UNITS

A unit is the equivalent of a course of study covering a school year of not less than thirty-six weeks with five periods of at least forty-five minutes each per week. To obtain full standing applicants under twenty-one years of age must have credit by examination or certificate for ***eight units***—of which two shall be English, one history, one or two mathematics, two or one science, and two language other than English—selected from the folowing list:

English	3 units
(Foreign students may substitute their native language for the English requirement.)	
American History or American History and Civil Government	1 unit
Ancient History (Greek and Roman) and Medieval History to 814 A. D.	1 unit
Medieval and Modern History (from 814 A. D., to the present)	1 unit
(For the present General History may be counted as a unit but not in addition to Ancient or Medieval and Modern History)	
English History	1 unit
Algebra (through quadratics)	1 unit
Algebra (beyond quadratics)	½ unit
Geometry (plane)	1 unit
Geometry (solid)	½ unit
Trigonometry	½ unit
Latin	2, 3, or 4 units
Greek	2, 3, or 4 units
German	2, 3, or 4 units
French	2, 3, or 4 units
Spanish	2, 3, or 4 units
(Not less than two units of any language will be accepted.)	

Physics	1 unit
Chemistry	1 unit
Physical Geography	1 unit
Zoology	1 unit
Botany	1 unit
Physical Geography, Zoology, Botany, Physiology	For the present any two of these may be counted together as ... 1 unit
Agriculture, Free-hand Drawing, Manual Training	The Entrance Board may, after investigating each claim, grant a total credit of not to exceed ..... 2 units

Preparation in excess of the requirement in any subject will not be credited unless it amounts to one-half unit. For a detailed statement of the extent and character of the work required in each subject mentioned above, see page 112.

No student under twenty-one years of age will be admitted to College if he is conditioned in more than two units. All entrance conditions must be removed within two years after admission.

ADMISSION TO ADVANCED STANDING

For admission to advanced standing in this College see requirements as stated on page 109.

COURSE IN VETERINARY MEDICINE

Degree: Doctor of Veterinary Medicine (D. V. M.).

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department.

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Chemistry (3) Principles.	4.	Chemistry (3) Inorganic.	4.	Physiology (14)	3.
Physiology (4) Histology.	5.	Physiology (14)	3.	Physiology (4) Phys. Chem.	5.
Vet. Med. (11) Anatomy.	7.	Physiology (4) Histology.	5.	Vet. Med. (13) Anatomy.	10.
		Vet. Med. (12) Anatomy.	10.	Zoology (28)	3.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.

SECOND YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Bacteriology (4)	5.	Vet. Med. (38) Materia Medica.	3.	Vet. Med. (38) Materia Medica.	3.
Vet. Med. (38) Materia Medica.	5.	Vet. Med. (46) Pharmacy.	2.	Vet. Med. (46) Pharmacy.	2.
Vet. Med. (14) General Pathology.	5.	Vet. Med. (15) Theory and Practice.	3.	Vet. Med. (16) Theory and Practice.	3.
Vet. Med. (37) Anatomy.	8.	Vt. Med. (42) Surgery.	4.	Vet. Med. (43) Surgery.	4.
		Vet. Med. (34) Pathology Lab.	3.	Vet. Med. (34) Pathology Lab.	3.
		Vet. Med. (47) Parasitology.	1.	Vet. Med. (47) Parasitology.	1.
		Vet. Med. (19) Clinic, Large ans.	1½.	Vet. Med. (19) Clinic, Large ans.	1½.
		Vet. Med. (48) Clinic, Small ans.	1½.	Vet. Med. (48) Clinic, Small ans.	1½.
Cadet Service	1.	Cadet Service	1.	Cadet Service	1.

THIRD YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
Vet. Med. (21) Physical Diag.	3.	Vet. Med. (15) Theory and Practice.	3.	Vet. Med. (22) Therapeutics.	3.
*Vet. Med. (25) Operating.	3.	Vet. Med. (44) Surgery.	4.	Vet. Med. (16) Theory and Practice.	3.
Vet. Med. (26) Horseshoeing.	3.	Vet. Med. (27) Meat Inspection.	3.	Vet. Med. (45) Surgery.	4.
Vet. Med. (31) Canine Diseases.	2.	Vet. Med. (31) Canine Diseases.	3.	Vet. Med. (33) Ophthalmology.	2.
Vet. Med. (23) Obstetrics.	4.	*Vet. Med. (41)	3.	*An. Husb. (18) Judging.	5.
Vet. Med. (36) Pathology Lab.	3.	*Bacteriology (6)	3-5.	*Bacteriology (6)	3-5.
*Bacteriology (6)	3-5.	*Bacteriology (12)	3-5.	*Bacteriology (12)	3-5.
*Bacteriology (12)	3-5.				
*Dairying (19) Milk Inspection.	2.	Vet. Med (19) Clinic, Large ans.	1½-3.	Vet. Med. (19) Clinic, Large ans.	1½-3.
Vet. Med. (19) Clinic, Large ans.	1½.			Vet. Med. (48) Clinic, Small ans.	1½-3.
Vet. Med. (48) Clinic, Small ans.	1½.	Vet. Med. (48) Clinic, Small ans.	1½-3.	*Bacteriology (4a)	3.

*Optional.

NOTE—Credit must be obtained for any optional subject taken.

NOTE—One optional subject may be substituted for part of the clinic. Hours to be arranged.

VETERINARY HOSPITAL

CLINICAL STAFF

DR. D. S. WHITE — DR. O. V. BRUMLEY
DR. J. H. MCNEIL — MARK ELSEY, *Clerk*

Free Clinics are held from 1 to 3 p. m. daily (Saturday 10 to 12 a. m.) that the students may become in a practical way familiar with the care and treatment of diseased and injured animals. During the clinic hours the students are required to assist the instructor in all surgical operations (castrations, spayings, dental work, etc.) and to administer all medicines to sick animals.

THE SUMMER TERM

PURPOSE OF THE SUMMER TERM. The aim of the Summer Term is to place the valuable equipment of the University at the service of those who cannot attend at other times and to meet the needs of the following classes of persons: (a) students preparing for college; (b) college students who desire to earn advance credit or to remove conditions; (c) engineering students desiring shopwork or field experience in surveying; (d) supervisors and teachers of special subjects, such as art, domestic science, drawing, manual training and shopwork, and music; (e) high school and normal school teachers; (f) superintendents and principals of schools; (g) graduate students; (h) artisans and students of correspondence schools; (i) teachers and students of zoology and botany who desire research work or advanced instruction in those sciences.

DAYS AND DATES. The fifth Summer Term of the Ohio State University will open Monday, June 21, and close eight weeks later on Friday, August 13, 1909. The artisan courses will run for four weeks only, those in drawing and in steam and electrical engineering from June 21 to July 17, and those in shopwork from July 19 to August 13. Instruction will begin in all departments on June 22.

ADMISSION. No definite educational requirements are prescribed for entrance to the Summer Term, except such as are necessary to enable a student to carry a course successfully. Students should be careful to select only such courses as they are confident they can carry.

REGISTRATION. All students are urged to register on Registration Day, Monday, June 21, at the Registrar's Office, University Hall, west end of the first floor. It is ex-

tremely important to the student that he should be present on the opening day of the term.

EXAMINATIONS. At the close of the term, stated examinations for those who desire credit will be held in the several courses.

UNIVERSITY CREDIT AND DEGREES. Credit will be given for the work done in the Summer Term upon the satisfactory completion of each course to the extent indicated in the Announcement of Courses (pages 240 to 254). This credit will count toward a university degree when the requirements for admission to one of the four-year courses have been fulfilled and admission to the corresponding college of the University secured. Students are urged to pursue systematic work extending over several years. Students will be expected to register for no more than twelve hours of university credit in the Summer Term.

FACULTY

WILLIAM O. THOMPSON, D. D., LL. D.	President
FRANK P. GRAVES, Ph. D.	Dean
GEORGE D. HUBBARD, Ph. D.	Secretary
CLEMENT M. BEEM	Pattern Making and Founding
ROSSER D. BOHANNAN, B. Sc., C. E., E. M.	Mathematics
BENJAMIN L. BOWEN, Ph. D.	French and Spanish
CHARLES A. BRUCE, B. A.	French
ADOLPH BUSSE, Ph. D.	German
GEORGE F. BUXTON, A. M.	Manual Training
FRANCIS C. CALDWELL, A. B., M. E.	Electrical Engineering
ALEANDO CASE	Vise Work
CHARLES P. CROWE	Forging
JOSEPH V. DENNEY, B. A.	English
SAMUEL C. DERBY, A. M.	Latin
EDWIN P. DURRANT, M. A.	Biology
CLARENCE A. DYKSTRA, B. A.	American History
ROBERT F. EARHART, Ph. D.	Physics
WALLACE S. ELDEN, Ph. D.	Latin
MARGARET S. FINNEY	Drawing

CHARLES W. FOULK, B. A.	Analytical Chemistry
THOMAS E. FRENCH, M. E.	Engineering Drawing
FRANK P. GRAVES, Ph. D.	History and Philosophy of Education
WILLIAM L. GRAVES, M. A.	English
JAMES E. HAGERTY, Ph. D.	Economics and Sociology
GEORGE D. HUBBARD, Ph. D.	Geology
HORACE JUDD, M. E., M. Sc.	Experimental Engineering
WILLIAM A. KNIGHT, M. E.	Machineshop Practice
HARRY W. KUHN, Ph. D.	Mathematics
MARY R. LAVER	Art
THOMAS K. LEWIS, B. Sc.	Manual Training
THOMAS S. LOWDEN, Ph. D.	Principles and Practice of Education
WILLIAM T. MAGRUDER, M. E.	Mechanical Engineering
DAVID R. MAJOR, P. D.	Psychology
EDGAR H. MCNEAL, Ph. D.	European History
WILLIAM MCPHERSON, JR., Ph. D., D. Sc.	Chemistry
ROBERT MEIKLEJOHN, M. E.	Engineering Drawing
SAMUEL MORRIS, M. S.	Chemistry
SAMUEL E. RASOR, M. A.	Mathematics
LEWIS A. RHOADES, Ph. D.	German
RALPH ROGERS, B. S. in M. E.	Engineering Drawing
FRANK E. SANBORN, S. B.	Industrial Arts
CHARLES S. SHEARD, M. A.	Physics
CLARA O. SMITH, B. S.	Domestic Science
JOSIAH R. SMITH, A M.	History of Art
WILLIAM E. SMYSER, M. A.	English
KARL D. SWARTZEL, M. Sc.	Mathematics
JOSEPH R. TAYLOR, M. A.	English
GEORGE R. TWISS, M. A.	Physics
WALTER L. UPSON, M. S., E. E.	Electrical Engineering
RUTH A. WARDALL, A. M.	Domestic Science
HARRY P. WELD, B. Ph.	Music

ANNOUNCEMENT OF COURSES

All courses are given daily, except Saturday, for eight weeks, unless otherwise stated. Credit courses are given their regular University number; other courses are designated by letter.

AMERICAN HISTORY AND POLITICAL SCIENCE

MR. DYKSTRA

FOR UNDERGRADUATES

1. POLITICAL HISTORY OF THE UNITED STATES. Four credit hours. Room 205, University Hall. 7:30 to 8:30. Prerequisite, a thorough high-school course in American History and Civics.

FOR GRADUATES AND ADVANCED UNDERGRADUATES

17. OHIO HISTORY AND GOVERNMENT. Four credit hours. Room 205, University Hall. 8:30 to 9:30.

FOR GRADUATES

14. SEMINARY. Hours and subjects for investigation to be arranged. Students intending to take this course should first consult with the instructor.

ART

ASSOCIATE PROFESSOR LAVER, MISS FINNEY

20. DRAWING AND PAINTING. Three credit hours. Room 19. Hayes Hall. 10:30 to 12:30. Associate Professor LAVER and Miss FINNEY.

13. ADVANCED COMPOSITION AND DESIGN. Three credit hours. Room 20, Hayes Hall. 7:30 to 9:30. Miss FINNEY.

1. THE TEACHING AND SUPERVISING OF ART. Three credit hours. Room 19, Hayes Hall. 7:30 to 9:30. Associate Professor LAVER.

BOTANY

PROFESSOR DURRANT OF OTTERBEIN UNIVERSITY

21. ELEMENTARY BOTANY. Four credit hours. Botanical Hall. Lectures, M., W., F., 8:30 to 9:30. Laboratory, Tu. and Th., 10:30 to 12:30. Text-book: Coulter's Botany.

PRIMARILY FOR GRADUATES

All advanced and research work in Botany will be given at the Lake Laboratory (see p. 255).

CHEMISTRY

PROFESSOR MC PHERSON PROFESSOR FOULK, MR. MORRIS

GENERAL CHEMISTRY. Four to eight credit hours. Room 200, Chemistry Hall. Lectures, 11:30, *M. W. F.* Laboratory open from 8 to 12 a. m., and 1 to 5 p. m. McPherson and Henderson's Elementary Study of Chemistry and McPherson's Laboratory Note-

book in Elementary Chemistry. Professor McPHERSON and Mr. MORRIS.

ANALYTICAL CHEMISTRY. Four to eight credit hours. Room 205. Chemistry Hall. Lectures in Qualitative Analysis, *M.* and *W.*, 1:30. Lectures in Quantitative Analysis, *Tu.* and *Th.*, 1:30. Laboratory open from 8 to 12 a. m., and 1 to 5 p. m. Professor FOULK and Mr. MORRIS.

PRIMARILY FOR GRADUATES

29. ADVANCED CHEMISTRY. Four to twelve credit hours. Laboratory open from 8 to 12 a. m. and 1 to 5 p. m. Professor McPHERSON and Professor FOULK.

CIVIL ENGINEERING

PROFESSOR SHERMAN, PROFESSOR ENO, ASSISTANT PROFESSOR SCHLAFLY, ASSISTANT PROFESSOR CHAMBERLIN, MR. WARD

22 or 23. SUMMER FIELD WORK IN SURVEYING. June 18 to July 17, six days a week, ten hours a day.

The prerequisites for course 22 are courses of collegiate grade in elementary land and railroad surveying, and topographic drawing, or their equivalents. The prerequisites for course 23 are course 22 and topographic surveying, or their equivalents.

DOMESTIC SCIENCE

PROFESSOR WARDALL, MISS SMITH

I. DOMESTIC SCIENCE

A. FOODS. Six weeks. Two recitations and two laboratory periods each week. Room 3, Hayes Hall. 1:30 to 3:30, *M.*, *W.*, and *F.* Prerequisite: Special training in Home Economics or experience in teaching the subject.

1. SELECTION AND PREPARATION OF FOODS. Three credit hours. Six weeks. Two recitations and three laboratory periods each week. 3:30 to 5:30. Room 3, Hayes Hall. Prerequisite: Chemistry 7 or 44.

12. TEACHERS' COURSE. One credit hour. Six weeks. Two recitations each week. 1:30 to 3:30, *Tu.* and *Th.* Room 3, Hayes Hall. Prerequisite: Some training in Domestic Science or experience in teaching the subject.

II. DOMESTIC ART

1. TEXTILES. Two credit hours. Six weeks. Lectures, *W.*, 1:30. Laboratory, *Tu.* and *Th.* Miss SMITH.

ECONOMICS AND SOCIOLOGY

PROFESSOR HAGERTY

I. ECONOMICS

FOR UNDERGRADUATES

33. PRINCIPLES OF ECONOMICS. Four credit hours. Room 209, University Hall. 7:30 to 8:30. Text-book: Seager's Introduction to Economics.

II. SOCIOLOGY

FOR UNDERGRADUATES

1. ELEMENTS OF SOCIOLOGY. Four credit hours. Room 209, University Hall. 8:30 to 9:30.

FOR GRADUATES

45. SEMINARY IN ECONOMICS AND SOCIOLOGY. Hours and subjects of investigation to be arranged. Room 209, University Hall. Students intending to take this course should first consult with the instructor.

EDUCATION

(See History and Philosophy of Education, Principles and Practice of Education, Psychology, and School Administration)

ELECTRICAL ENGINEERING

PROFESSOR CALDWELL, ASSISTANT PROFESSOR UPSON

Each of the courses will include one hour of class-room work and three hours of laboratory work on six mornings of the week, from June 21 to July 17. The laboratory work will illustrate and enforce the work given in the class room.

A. ELEMENTARY ELECTRICAL ENGINEERING. Engineering Laboratory, north end. Lecture and recitation, 8:30 to 9:30; laboratory, 9:30 to 12:30. Assistant Professor UPSON.

B. DIRECT CURRENT DYNAMO MACHINERY. Engineering Laboratory, north end. Lecture and recitation, 7:30 to 8:30; laboratory 9:30 to 12:30. Prerequisite: Course A or its equivalent in study or experience elsewhere. Assistant Professor UPSON.

C. ELEMENTS OF ALTERNATING CURRENTS AND APPARATUS. Engineering Laboratory, north end. Lecture and recitation 8:30 to 9:30; laboratory, 9:30 to 12:30. Professor CALDWELL.

D. ELEMENTS OF DISTRIBUTION, WIRING, AND ILLUMINATION. Lecture and recitation, 7:30 to 8:30; laboratory, 9:30 to 12:30. Prerequisite: Course A or its equivalent in study or experience elsewhere. Professor CALDWELL.

ENGINEERING DRAWING

PROFESSOR FRENCH, ASSISTANT PROFESSOR ROGERS, ASSISTANT PROFESSOR MEIKLEJOHN

A. ELEMENTARY MECHANICAL DRAWING. Room 45, Brown Hall, 9:30 to 12:30 or 1:30 to 4:30, six days a week, four weeks, June 21 to July 17. Assistant Professor ROGERS.

B. ADVANCED MECHANICAL DRAWING. Room 45, Brown Hall, 9:30 to 12:30 or 1:30 to 4:30, six days a week, four weeks, June 21 to July 17. Assistant Professor ROGERS.

33. PROJECTION DRAWING. Three credit hours. Room 44, Brown Hall, 1:30 to 3:30. Text-book: Anthony's Mechanical Drawing. Professor FRENCH.

34. DESCRIPTIVE GEOMETRY. Three credit hours. Room 43, Brown Hall, 1:30 to 3:30. Text-book: Moyer's Descriptive Geometry. Assistant Professor MEIKLEJOHN.

36. DESCRIPTIVE GEOMETRY. Five credit hours. Room 43, Brown Hall, 3:30 to 5:30. Text-book: Moyer's Descriptive Geometry. Assistant Professor MEIKLEJOHN.

48. THE TEACHING OF MECHANICAL DRAWING. Four credit hours. Room 47, Brown Hall, 3:30 to 5:30. Professor FRENCH.

49. LETTERING IN DESIGN. Two credit hours. Room 47, Brown Hall. *M., Th.,* 3:30 to 5:30. Professor FRENCH.

ENGLISH

PROFESSOR DENNEY, PROFESSOR TAYLOR, PROFESSOR SMYSER OF OHIO WESLEYAN UNIVERSITY, ASSOCIATE PROFESSOR GRAVES

Persons desiring work in English for entrance credit should consult the Dean or the Secretary.

Persons desiring graduate work in English should address Professor DENNEY.

FOR UNDERGRADUATES

2. EXPOSITORY WRITING. Two credit hours. Room 119, University Hall. *M., W.*, 7:30 to 8:30 (and 10:30 to 11:30, if necessary.) Text book: Buck and Woodbridge's Expository Writing. Associate Professor GRAVES.

3. BRIEF MAKING AND WRITTEN ARGUMENTITION. Two credit hours. Room 119, University Hall. *Tu., Th.*, 7:30 to 8:30 (and 10:30 to 11:30, if necessary). Text-book: Buck's Argumentative Writing. Associate Professor GRAVES.

19. TENNYSON. Four credit hours. Room 118, University Hall. 7:30 to 8:30. Professor SMYSER.

35. SHAKESPEARE. Four credit hours. Room 117, University Hall. 10:30 to 11:30. Professor DENNEY or Professor TAYLOR.

FOR GRADUATES AND ADVANCED UNDERGRADUATES

48a. THE TEACHING OF ENGLISH. Four credit hours. Room 117, University Hall. 11:30 to 12:30. Professor DENNEY or Professor TAYLOR.

48b. ENGLISH CLASSICS. Four credit hours. Room 118, University Hall. 8:30 to 9:30. Professor SMYSER.

Courses 48a and 48b may be elected separately.

FOR GRADUATES

63. LITERARY PROBLEMS. A course exclusively for graduate students, arranged to meet the individual needs of those applying. Professor DENNEY or Professor TAYLOR and Professor SMYSER.

EUROPEAN HISTORY

ASSISTANT PROFESSOR MC NEAL

2. EUROPEAN HISTORY FROM 1300 TO 1648 A. D. Four credit hours. Room 201, University Hall. 8:30 to 9:30. Text book: Robinson's History of Western Europe.

4. THE HISTORY OF ENGLAND. Four credit hours. Room 201, University Hall. 7:30 to 8:30.

PRIMARILY FOR GRADUATES

22. SEMINARY IN MEDIAEVAL HISTORY. Two credit hours. Time to be arranged.

FRENCH

(See Romance Languages)

GEOLOGY

ASSISTANT PROFESSOR HUBBARD

FOR UNDERGRADUATES

17. PHYSIOGRAPHY. Three credit hours. Lecture Room, Orton Hall. *M., Tu., W.*, 8:30 to 9:30. Laboratory, *Tu.*, 1:30 to 3:30. Excursions, Monday afternoon and certain Saturdays.

Persons desiring entrance credit in physical geography (½ unit) may obtain it by successfully pursuing this course.

GENERAL GEOLOGY. Five credit hours. Lecture Room, Orton Hall. 7:30 to 8:30. Laboratory, *W.*, 1:30 to 3:30. Excursions Monday afternoons and certain Saturdays.

NOTE—On Wednesday of each week in course the lecture will be devoted to some topic of general interest and will be open to all who care to attend. In most cases it will be illustrated.

FOR GRADUATES AND ADVANCED UNDERGRADUATES

21. ADVANCED PHYSIOGRAPHY. Four to twelve credit hours. Room 18, Orton Hall. Time to be arranged. Prerequisites: Geology 17 and 11, 12 and 13, or equivalents.

GEOLOGICAL EXCURSION

In connection with the work of the department during the Summer Term there will be an excursion of two or three days, if it is desired. The date of the excursion will be July 22 to 24, if the weather permits. The expense cannot be exactly stated, but will not be far from $12.00 to $15.00.

GERMANIC LANGUAGES AND LITERATURES

PROFESSOR RHOADES, ASSISTANT PROFESSOR BUSSE

1. ELEMENTARY COURSE. Four credit hours. Room 320, University Hall. 8:30 to 9:30. Professor RHOADES.

2. INTERMEDIATE GERMAN. Four credit hours. Room 320, University Hall. 7:30 to 8:30. Assistant Professor BUSSE.

FOR GRADUATES AND ADVANCED UNDERGRADUATES

10. MODERN DRAMA AND PROSE COMPOSITION. Four credit hours. Room 317, University Hall. 8:30 to 9:30. Assistant Professor BUSSE.

11. FAUST. Four credit hours. Room 317, University Hall. 10:30 to 11:30. Professor RHOADES.

FOR GRADUATES

26. SEMINARY. Two credit hours. Hours and works to be read will be determined later. Professor RHOADES and Assistant Professor BUSSE.

GREEK

(See History of Art)

HISTORY AND PHILOSOPHY OF EDUCATION

PROFESSOR F. P. GRAVES

FOR GRADUATES AND ADVANCED UNDERGRADUATES

1. HISTORY OF EDUCATION. Four credit hours. Old Mechanical Laboratory. 8:30 to 9:30. Text-books: Graves' A History of Education and Quick's Educational Reformers. Students desiring credit toward a graduate degree must confer with the instructor beforehand and arrange to give extra time to the work.

3. EDUCATIONAL CLASSICS. Four credit hours. Room 107, Chemistry Hall. 10:30 to 11:30. Students intending to elect this course must first confer with the instructor.

PRIMARILY FOR GRADUATES

4. HISTORY OF EUROPEAN SCHOOL SYSTEMS. Two to four credit hours. Room 102, University Hall. Time to be arranged. Students desiring this course must first consult with the instructor.

HISTORY OF ART

(Department of Greek Language and Literature)

PROFESSOR SMITH

FOR GRADUATES AND ADVANCED UNDERGRADUATES

22, 23. HISTORY OF ANCIENT ART. Six weeks. Three credit hours. More credit may be obtained by arrangement with the instructor. Graduate students will be expected to do extra work and should consult with the instructor. Room 306, University Hall. 10:30 to 11:30. Text book: Tarbell's History of Greek Art (Chautauqua Series).

32, 33. HISTORY OF MEDIAEVAL ART. Six weeks. Three credit hours. More credit may be obtained by special arrangement, as in Courses 22, 23. Room 306, University Hall. 11:30 to 12:30. Text-book: Goodyear's History of Roman and Mediaeval Art.

INDUSTRIAL ARTS

PROFESSOR SANBORN

A. MECHANICAL MOVEMENTS. Room 12, Hayes Hall. June 21 to July 17. Six days a week. 7:30 to 9:30.

LATIN

PROFESSOR DERBY, PROFESSOR ELDEN

A. VERGIL'S AENEID. Room 316, University Hall. Six weeks, 8:30 to 9:30. Professor ELDEN.

B. CICERO'S ORATIONS. Room 306, University Hall. Six weeks, 7:30 to 8:30. Text-book: Allen and Greenough's Cicero, revised edition, preferred. Professor DERBY.

FOR UNDERGRADUATES

13. ODES OF HORACE. Four credit hours. Room 316, University Hall. 7:30 to 8:30. Prerequisite: Four units of preparatory Latin. Professor ELDEN.

19. PLINY'S LETTERS. Three credit hours. Room 306. University Hall. 8:30 to 9:30. Prerequisites: Four units of preparatory Latin,and either credit for advanced Latin or experience in teaching Latin. Text-book: Westcott's edition of Pliny's Letters. Professor DERBY.

PRIMARILY FOR GRADUATES

30. ROMAN LIFE. One hour. Time to be arranged. Those desiring this course should first consult the instructors. Professor DERBY and Professor ELDEN.

MANUAL TRAINING

DIRECTOR BUXTON OF STOUT INSTITUTE, ASSISTANT PROFESSOR LEWIS

1. TEACHING AND SUPERVISION OF MANUAL TRAINING. Room 9, Hayes Hall. Three credit hours. Six weeks. 1:30 to 2:30. Director BUXTON.

2. DRAWING AND DESIGN. Room 9, Hayes Hall. Three credit hours. Six weeks. 2:30 to 3:30. Director BUXTON.

3. PRIMARY HANDWORK. Room 9, Hayes Hall. Three credit hours. Six weeks. 3:30 to 5:30. Director BUXTON.

4. CLAY-MODELING AND POTTERY. Room 22, Hayes Hall. Three credit hours. Six weeks. 3:30 to 5:30. Assistant Professor LEWIS.

5. ELEMENTARY WOODWORK AND CABINET MAKING. Room 12, Hayes Hall. Three credit hours. Six weeks. 1:30 to 3:30. Assistant Professor LEWIS.

6. WOODS AND WOOD-WORKING. Room 12, Hayes Hall. Three credit hours. Six weeks. 10:30 to 11:30. Assistant Professor LEWIS.

MATHEMATICS

PROFESSOR BOHANNAN, PROFESSOR SWARTZEL, PROFESSOR KUHN, ASSOCIATE PROFESSOR RASOR

A. ELEMENTARY ALGEBRA. Room B, Page Hall. 8:30 to 9:30. Text-book: Young and Jackson's Elementary Algebra. Associate Professor RASOR.

This course will be run in two sections reciting at the same hour. One section will cover the work required in the "first unit," and the other that of the "second unit" of algebra of the entrance requirements.

B. PLANE GEOMETRY. Room B, Page Hall. 7:30 to 8:30. Text-book: Wells' New Plane and Solid Geometry (1908 Edition). Associate Professor RASOR.

C. SOLID GEOMETRY. Room A, Page Hall. 10:30 to 11:30. Text-book: Wells' New Plane and Solid Geometry (1908 Edition). Professor KUHN.

FOR UNDERGRADUATES

33. ANALYTICAL GEOMETRY. Five credit hours. Room A, Page Hall. 7:30 to 8:30. Text-book: Ashton's Analytical Geometry. Professor BOHANNAN.

43. INTEGRAL CALCULUS. Five credit hours. Room A, Page Hall. 8:30 to 9:30. Text-book: Murray's Integral Calculus. Professor BOHANNAN.

FOR GRADUATES AND UNDERGRADUATES

29. TEACHING OF MATHEMATICS. Five credit hours. Room A, Page Hall. Eight weeks. 7:30 to 8:30. Professor SWARTZEL.

About one-half of the time will be given to algebra and the other half to geometry.

PRIMARILY FOR GRADUATES

HIGHER MATHEMATICS. From one to five hours, arranged on consultation with the department.

MECHANICAL DRAWING
(See Engineering Drawing)

MECHANICAL ENGINEERING

PROFESSOR MAGRUDER, ASSISTANT PROFESSOR JUDD

Two courses in class room work and two courses in laboratory work will be given daily from June 21 to July 17. The laboratory work will illustrate and enforce the work given in the class room.

A. STEAM AND GAS ENGINES. Room 206, south end, Engineering Laboratory. Lectures and recitations, 7:30 to 8:30. Professor MAGRUDER.

B. STEAM BOILERS. Room 206, south send, Engineering Laboratory. Lectures and recitations, 8:30 to 9:30. Professor MAGRUDER.

C. ELEMENTARY STEAM ENGINEERING LABORATORY. Mechanical Laboratory. 1:30 to 5:30. Assistant Professor JUDD.

D. ADVANCED STEAM ENGINEERING LABORATORY. Mechanical Laboratory and Engineering Laboratory. 1:30 to 5:30. Assistant Professor JUDD.

MUSIC

PROFESSOR WELD

A. ELEMENTARY. Chapel, University Hall, 11:30 to 12:30.

B. ADVANCED. Chapel, University Hall, 10:30 to 11:30.

C. PRACTICE IN CHORAL SINGING. Chapel, University Hall, 4:30 to 5:30.

PHYSICS

ASSISTANT PROFESSOR EARHART, MR. TWISS, MR. SHEARD

A. COLLEGE ENTRANCE PHYSICS. Mechanics, Heat, Electricity, Sound, Light. Room 51, Physics Building. Twelve lectures and three laboratory periods per week. Lectures daily, 10:30 to 11:30 and 11:30 to 12:30, Tu., Th., 2:30 to 3:30. Laboratory, *M., W., F.*, 1:30 to 4:30. Text-book: Mann and Twiss's Physics. Mr. Twiss and Mr. SHEARD.

2. GENERAL PHYSICS. Mechanics and Heat. Three credit hours. Room 51, Physics Building. *M., Tu., W., F.*, 8:30 to 9:30. Laboratory, *Th.*, 1:30 to 4:30. Prerequisite: Mathematics 21, 22, 23, or 31, 32, 33. Assistant Professor EARHART and Mr. SHEARD.

This corresponds to the work regularly given in the fall term with the same course number.

FOR GRADUATES AND ADVANCED UNDERGRADUATES

12 and 13. ADVANCED LABORATORY PHYSICS. Four credit hours. Room 31, Physics Building. 1:30 to 3:30. Assistant Professor EARHART.

Credit for one term of courses 5 and 7 in the College of Engineering can be secured by properly prepared students by taking this course.

14. ADVANCED HEAT OR ADVANCED ELECTRICITY AND MAGNETISM. Three credit hours. Time to be arranged. Prerequisite: Calculus and one year of College Physics (11 or 2). Assistant Professor EARHART.

PRINCIPLES AND PRACTICE OF EDUCATION

ASSOCIATE PROFESSOR LOWDEN

FOR UNDERGRADUATES

1. PRINCIPLES. Four credit hours. Room 107, Chemistry Hall. 7:30 to 8:30.

PSYCHOLOGY

PROFESSOR MAJOR

2. EDUCATIONAL PSYCHOLOGY. Four credit hours. Room 202, University Hall. 11:30 to 12:30. Text-book: James' Talks to Teachers on Psychology.

FOR GRADUATES AND ADVANCED UNDERGRADUATES

4. MENTAL DEVELOPMENT. Four credit hours. Room 202, University Hall. 10:30 to 11:30.

PRIMARILY FOR GRADUATES

16. INDIVIDUAL PSYCHOLOGY. Two to four credit hours. Time to be arranged.

ROMANCE LANGUAGES AND LITERATURES

PROFESSOR BOWEN, PROFESSOR BRUCE

I. FRENCH

FOR UNDERGRADUATES

1. ELEMENTARY COURSE. Four credit hours. Room 302, University Hall. 10:30 to 11:30. Text-book: Thieme and Effinger's French Grammar. Professor BRUCE.

2. MODERN FRENCH LITERATURE. Four credit hours. Room 302, University Hall. 8:30 to 9:30. Prerequisite: One year of collegiate French, or its equivalent. Professor BRUCE.

FOR GRADUATES AND ADVANCED UNDERGRADUATES

4. FRENCH COMEDY OF THE SEVENTEENTH CENTURY. Four credit hours. Room 305, University Hall. 11:30 to 12:30. Prerequisite: At least two years (four hours a week) of collegiate French. Professor BOWEN.

FOR GRADUATES

14. SEMINARY IN FRENCH LITERATURE. Four credit hours. Time to be arranged. Professor BOWEN.

II. SPANISH

FOR UNDERGRADUATES

1. ELEMENTARY COURSE. Four credit hours. Room 303, University Hall. 10:30 to 11:30. Text-books: Hills and Ford's Spanish Grammar and Ingraham's Victoria. Professor BOWEN.

SCHOOL ADMINISTRATION

ASSOCIATE PROFESSOR LOWDEN

FOR UNDERGRADUATES AND GRADUATES

1. SUPERVISION OF PUBLIC EDUCATION. Three credit hours. 107 Chemistry Hall. *M. W., F.*, 11:30 to 12:30. Students desiring to obtain credit toward a graduate degree must arrange to do extra work.

10. SECONDARY EDUCATION. Two credit hours. 107 Chemistry Hall. *Tu., Th.*, 11:30 to 12:30. Students desiring graduate credit must arrange to do extra work.

PRIMARILY FOR GRADUATES

4. SEMINARY IN SCHOOL ADMINISTRATION. Two to four credit hours. Hours and room to be arranged.

SHOPWORK

PROFESSOR SANBORN, ASSISTANT PROFESSOR KNIGHT, MR. BEEM, MR. CROWE, MR. CASE

ENGINEERING COURSES

June 21 to July 17. Six days a week.

4. CHIPPING AND FILING. Room 6, Hayes Hall. 8:30 to 11:30 or 1:30 to 4:30. Assistant Professor KNIGHT, Mr. CASE.

7. CARPENTERY AND PATTERN-MAKING. Room 17, Hayes Hall. 8:30 to 11:30 or 1:30 to 4:30. Mr. BEEM.

11. FORGING. Room 6W., Hayes Hall. 8:30 to 11:30 or 1:30 to 4:30. Mr. CROWE.

13. MACHINE-WORK. Room 6, Hayes Hall. 8:30 to 11:30 or 1:30 to 4:30. Assistant Professor KNIGHT.

14. MACHINE-WORK. Room 6, Hayes Hall. June 21 to July 2. 8:30 to 12:00 and 1:30 to 5:00. Prerequisite: Shop 13. Assistant Professor KNIGHT.

15. ADVANCED MACHINE WORK. Room 6, Hayes Hall. July 5 to July 17. 8:30 to 12:00 and 1:30 to 5:00. Prerequisite: Shop 14. Assistant Professor KNIGHT.

ARTISAN COURSES

July 19 to August 13

The shops will be run eight hours a day, from 8:30 to 12:30, and from 1:30 to 5:30, for six days a week. The hours of the courses will depend upon the work desired, and will be arranged as far as possible to suit the individual needs of the students.

Persons taking Artisan Shopwork should be able to read a drawing. If not, Course A or B in Mechanical Drawing must be taken.

A. PATTERN-MAKING. Room 17, Hayes Hall. Mr. BEEM.

B. CABINET-MAKING. Room 17, Hayes Hall. Mr. BEEM.

C. FORGING. Room 6W., Hayes Hall. Mr. CROWE.

D. TOOL-SMITHING. Room 6W., Hayes Hall. Mr. CROWE.

E. BENCH-WORK IN IRON. Room 6, Hayes Hall. Assistant Professor KNIGHT, Mr. CASE.

F. METAL LATHE-WORK. Room 6, Hayes Hall. Assistant Professor KNIGHT.

G. ADVANCED METAL LATHE-WORK. Room 6, Hayes Hall, Assistant Professor KNIGHT.

H. MILLING-MACHINE WORK AND GRINDING. Room 6, Hayes Hall. Assistant Professor KNIGHT.

I. TOOL MAKING. Room 6, Hayes Hall. Assistant Professor KNIGHT.

SPANISH

(See Romance Languages)

ZOOLOGY AND ENTOMOLOGY

PROFESSOR DURRANT OF OTTERBEIN UNIVERSITY

1. ELEMENTARY ZOOLOGY. Four credit hours. Botanical Hall. Lectures, *Tu.* and *Th.*, 8:30 to 9:30. Laboratory, *M.*, *W.* *F.*, 10:30 to 12:30.

PRIMARILY FOR GRADUATES

All advanced work in zoology and entomology will be given at the Lake Laboratory (see p. 255).

For further information send for a bulletin of the Summer Term. Those desiring special information in regard to the Artisan Courses should send for the special bulletin describing those courses. All such requests should be addressed to the University Editor.

LAKE LABORATORY

The Lake Laboratory of the Ohio State University, located on Cedar Point near Sandusky, is designed to provide a meeting ground for teachers and students of biology, to afford opportunity for the investigation of the biology of the lake region, and for giving certain courses of instruction in biological subjects.

FEES

The total laboratory fee is fixed at $20 for a term of six weeks' instruction with privilege of continuing laboratory work at least two weeks after the lecture courses are completed. No enrollment will be made for less than a half term. Each course is expected to occupy half of the time available, unless it is elected to give the entire time to one subject; therefore each student, on payment of one fee, will be entitled to any two of the courses outlined under the courses of study, and the courses are so arranged that almost any two courses named may be taken without conflict of hours.

UNIVERSITY CREDIT

It will be noticed that several of the advanced courses cover the ground of university courses. Students with university standing may secure credit for such work. The opportunities for research or thesis work are also exceptionally good in certain lines.

Staff of Officers and Instructors for 1909

WILLIAM OXLEY THOMPSON, D. D., LL. D.,
PRESIDENT OF THE UNIVERSITY

HERBERT OSBORN, M. Sc., ... DIRECTOR
Professor of Zoology and Entomology.

F. L. LANDACRE, B. A., ... ACTING DIRECTOR
General Zoology, Embryology
Professor of Zoology and Entomology.

E. L. RICE, Ph. D., Comparative Anatomy, Ornithology
Professor of Zoology, Ohio Wesleyan University.

JOHN H. SCHAFFNER, M. A., M. S., ... Ecology
Associate Professor of Botany.

MALCOLM E. STICKNEY, A. M., ... Botany
Professor of Botany, Denison University.

L. B. WALTON, Ph. D.,
Experimental Zoology, Aquatic Biology
Professor of Biology, Kenyon College.

CHARLES BROOKOVER, B. Ped., M. S.,
Invertebrate Morphology, Ichthyology
Professor of Biology, Buchtel College.

J. C. HAMBLETON, M. A., ... Entomology
East High School, Columbus.

Courses of Study

ZOOLOGY AND ENTOMOLOGY

a. GENERAL ZOOLOGY. Especially for Teachers. Laboratory and field courses with occasional lectures and quiz, and including dissection or microscopic study of type forms, aquaria and field studies with instruction in collecting and preparing material for laboratory use and permanent collections. Professor LANDACRE.

b. EMBRYOLOGY. A study of mitosis, segmentation, and germ layer formations of different types, but with special emphasis on the development of the fish. The course will be offered as far as possible from material collected at the laboratory, but some time will be devoted to technique. Students properly qualified may undertake the study of some embryological problem. Professor LANDACRE.

c. ENTOMOLOGY. Field and laboratory course, including instruction in collecting, mounting, and identifying insects in connection with studies in life history and anatomy. Excellent opportunties for life-history studies are offered both on aquatic and terrestrial forms. Mr. HAMBLETON.

d. ICHTHYOLOGY. Special course devoted particularly to the lake fishes, their habits and food supplies. Professor BROOKOVER.

e. ORNITHOLOGY. Field work, together with lectures on morphology and natural history of birds. In the field work especial attention will be devoted to the study of the shore, swamp, and water birds, breeding habits, and the ecological conditions of the vicinity of the laboratory. *Each student should be provided with field glass or opera glass.* Professor RICE.,

f. INVERTEBRATE MORPHOLOGY. An advanced course including laboratory work on representative forms, investigations of special morpohological problems, and a discussion of the classification and phylogenic relationship of the various groups of invertebrates, with occasional lectures and quizzes. Professor BROOKOVER.

g. EXPERIMENTAL ZOOLOGY. Lecture and laboratory course. A review of the methods and results of the experimental study of zoology and evolution, with special reference to later work on variation and heredity. A study of Mendel's Law will be undertaken with its application to animal breeding from both the practical and theoretical viewpoint. The laboratory work will consist in the experimental study of certain animals of the region with relation to their variation, environment, breeding habits and growth, including a study of the tropisms. Open to those who have had a course in general zoology. Professor WALTON.

h. VERTEBRATE COMPARATIVE ANATOMY. Lectures and laboratory work. In view of the shortness of the term, a rather small number of types will be dissected in the laboratory, and the attention will be concentrated on certain selected organs and systems of organs. The work may be varied to suit individual requirements. Professor RICE.

i. RESEARCH WORK. Students who desire, if properly qualified, may enter upon some faunal, ecological, or other problem, under the direction of some one of the professors present.

j. AQUATIC BIOLOGY. This course will deal primarily with the fresh water forms of life occuring in Sandusky Bay, paying particular attention to the micro-organisms of both the animal and plant kingdom. After obtaining a general knowledge of the representatives of the various classes of organisms, each student will select one form and study it as exhaustively as time permits. Plankton and plankton methods will receive due consideration. Throughout the course attention will be paid to the technique of collecting and preparing material. It is desirable although not absolutely necessary, that students taking the course possess a reading knowledge of German and French. Occasional lectures and quizzes. Professor WALTON.

BOTANY

a. GENERAL BOTANY. Especially for teachers. A course in morphology and biology of plants, including a study, in natural surroundings so far as possible of type forms from the lowest to the highest orders. The course will consist of collecting trips in the field where common species of each class are found, and a study in the laboratory of those features of structure and reproduction which are of interest in connection with the evolution and relationships of each group. Attention is given to methods

of preparation and preservation for future use. Professor STICKNEY.

b. ECOLOGY. Field and laboratory course, accompanied by lectures, quiz, and consultation of the literature. A study of the struggle for existence among plants, as shown by their reactions and adaptations to the various factors of their environment—water, light, soil, temperature, etc. The identification of trees, shrubs, and herbaceous plants, and their grouping into societies, forms a part of the work. Special attention is given to the peculiar conditions in evidence at Cedar Point and vicinity. Professor SCHAFFNER.

c. SPECIAL WORK. Subject selected may be Ecology, Morphology, Systematic Botany, or special work on Algae or some other group of plants. Professor STICKNEY, Professor SCHAFFNER.

DEPARTMENTS OF INSTRUCTION

AGRICULTURAL CHEMISTRY

(Townshend Hall)

PROFESSOR VIVIAN, PROFESSOR WEBER, MR. BEAR, MR. R. C. COLLISON, MR. S. E. COLLISON.

13. GENERAL AGRICULTURAL CHEMISTRY. Five credit hours. Three terms. Four-year course in Agriculture, Horticulture, and Forestry. Prerequisite, Chemistry, 7, 12, and 42. *M., W., F., at* 9. Laboratory, *M., F.,* 1 *to* 4, or *Tu., Th.,* 1 *to* 4. PROFESSOR VIVIAN, MR. BEAR, MR. R. C. COLLISON, and MR. S. E. COLLISON.

14. DOMESTIC SCIENCE CHEMISTRY. Five credit hours. Course in Domestic Science, second and third term. Prerequisite Chemistry, 7, 12, and 34. *W., F., at* 8. Laboratory, *M., Tu.,* 1 *to* 4, or *Th., F.,* 1 to 4. PROFESSOR VIVIAN, MR. BEAR, MR. R. C. COLLISON, and MR. S. E. COLLISON.

15. INDUSTRIES RELATED TO AGRICULTURE. Four credit hours. Three terms. Prerequisite, Course 13, or an equivalent preparation in quantitative analysis. Time to be arranged. Professor WEBER.

16. APPLICATION OF CHEMISTRY TO AGRICULTURE. Four credit hours. *M., Tu., Th., F., at* 11. Short courses in Agriculture and Horticulture. Third term. Professor VIVIAN.

17. ADVANCED AGRICULTURAL ANALYSIS. Five credit hours. Three terms. Prerequisite, Course 13. Professors WEBER and VIVIAN and MR. BEAR.

18. FOOD INSPECTION AND ANALYSIS. Three to nve credit hours. Three terms. Prerequisite, Course 13, or an equivalent preparation in quantitative analysis. Professors WEBER and VIVIAN.

19. DAIRY CHEMISTRY. Three to five credit hours. Three terms. Prerequisite, Course 13. Time to be arranged. Professors VIVIAN and WEBER.

20. CHEMISTRY OF SOILS. Three to five credit hours. Three terms. For students specializing in Agronomy. Prerequisite, Course 13. Time to be arranged. Professors WEBER and VIVIAN.

21. ADVANCED HOUSEHOLD CHEMISTRY. Three to five credit hours. Three terms. Prerequisite, Course 14. First term, *Tu., Th.,*

at 8, *M., F.,* 9 *to* 12. Second and third terms, time to be arranged. Professors WEBER and VIVIAN.

22. RESEARCH WORK. Five to ten credit hours. Three terms. Time to be arranged. Professors WEBER and VIVIAN.

23. CHEMISTRY OF ANIMAL NUTRITION. Three to five credit hours. Three terms. Prerequisites, Course 13 or equivalent. Time to be arranged. Professor VIVIAN.

For students specializing in Animal Husbandry.

(Courses 17 to 23 may be taken as graduate work if not previously elected, or continued as special lines of research during a graduate course. Major graduate work may be taken along these or other lines included in Agricultural Chemistry.)

AGRONOMY

(Townshend Hall)

PROFESSOR MCCALL, ASSOCIATE PROFESSOR SHOESMITH, ASSISTANT PROFESSOR RAMSOWER

2. FARM EQUIPMENT. Four credit hours. First term. Prerequisite, Eng. Drawing 10. *M., W., F., at* 9 or 11; *W.* or *F.,* 1 *to* 4; *Tu. or Th.,* 9 *to* 12. Professor MCCALL, Assistant Professor RAMSOWER.

4. AGRICULTURAL ENGINEERING. Five credit hours. Third term. Prerequisite, Agronomy 2. *Tu., Th., at* 9; *Tu., Th.,* 1 *to* 4. Professor MCCALL, Assistant Professor RAMSOWER.

11. ELEMENTARY SOILS. Four credit hours. Second term. Two-year courses in Agriculture and Horticulture. *M., W., F., at* 11; *W.* or *F.,* 1 *to* 4. Professor MCCALL.

12. ELEMENTARY SOILS. Four credit hours. Four-year courses in Agriculture, Horticulture, and Forestry. Third term, *M., W., F., at* 8; *M.,* 1 *to* 4. Professor MCCALL.

14. ADVANCE SOILS. Five credit hours. First term. Prerequisite, Agronomy 11 or 12. *Tu., Th., at* 8; *Tu., Th.,* 1 *to* 4. Professor MCCALL.

16. FIELD WORK IN SOILS.. Three credit hours. First term. Lecture arranged. *W.,* 1 *to* 4. Professor MCCALL.

22. FIELD CROP PRODUCTION. Four credit hours. Third term. Prerequisite, Botany 1, or its equivalent. *M., W., F., at* 11; *W. or F.,* 1 *to* 4; *Tu. or Th.,* 9 *to* 12. Associate Professor SHOESMITH.

23. SEED AND MARKET GRAIN. First term. Two credit hours. Time to be arranged. Practicum. Prerequisite, Agronomy 22. Associate Professor SHOESMITH.

24. AGRICULTURAL EXPERIMENTATION. Four credit hours. Second term. Lecture arranged. *Tu., Th.,* 1 *to* 4. Professor McCALL.

26. FIELD CROP IMPROVEMENT. Three credit hours. Third term. Prerequisite, Agronomy 22. *Tu., Th., at* 8; *W.,* 1 *to* 4. Associate Professor SHOESMITH.

27. GRASSES AND FORAGE CROPS. Three credit hours. First term. Prerequisite, Botany, 1, or its equivalent. *Tu., Th., at* 9. Laboratory to be arranged. Associate Professor SHOESMITH.

GRADUATE WORK

Special work in Soils, or Crops, will be arranged for students desiring to take a graduate course in Agronomy.

28. ADVANCED CROP PRODUCTION. Five to ten credit hours. Three terms.

Research and monograph work in one or more of the cereal or forage crops.

29. ADVANCED CROP IMPROVEMENT. Five to ten credit hours. Three terms.

30. RESEARCH WORK IN SOILS. Three to five credit hours. Three terms.

AMERICAN HISTORY AND POLITICAL SCIENCE

(Office, Room 207, University Hall)

PROFESSOR KNIGHT, PROFESSOR SPENCER, ASSISTANT PROFESSOR TANNER, MR. DYKSTRA

I AMERICAN HISTORY.

1. POLITICAL HISTORY OF THE UNITED STATES. Three credit hours. Three terms. *M., W., F., at* 8, 9, 11, or 1. Professor KNIGHT, Assistant Professor TANNER, Mr. DYKSTRA.

2. THE AMERICAN COLONIES, 1600-1763. Three credit hours. Three terms. *M., W., F., at* 2. Assistant Professor TANNER.

*4. THE SLAVERY STRUGGLE AND ITS RESULTS, 1800-1900. Three credit hours. Three terms. *M., W., F., at* 11. Given biennially, alternating with Course 6. Professor KNIGHT.

6. HISTORY OF AMERICAN DIPLOMACY, 1776-1900. Three credit hours. Three terms. *M., W., F., at* 11. Given biennially, alternating with Course 4. Professor KNIGHT.

*Not given in 1909-1910.

*7. POLITICAL PARTIES IN THE UNITED STATES, 1789-1900. Two credit hours. Three terms. *Tu., Th., at* 2. Given biennially, alternating with Course 15. Mr. DYKSTRA.

*10. SEMINARY FOR RESEARCH IN AMERICAN HISTORY. Two credit hours. Three terms. Time to be arranged. Prerequisite, two courses in American history. Professor KNIGHT.

11. THE TEACHING OF AMERICAN HISTORY. One credit hour. three terms. *W., at* 3. Professor KNIGHT, Assistant Professor TANNER.

12. THE REVOLUTIONARY AND CRITICAL PERIOD, 1763-1789. Two credit hours. Three terms. *M., F., at* 2. Given biennially. Professor SPENCER.

15. THE HISTORY OF THE WEST. Two credit hours. Three terms. *Tu., Th., at* 2. Given biennially, alternating with Course 7. Mr. DYKSTRA.

16. CONSTITUTIONAL HISTORY OF THE UNITED STATES. Two credit hours. Three terms. *M., F., at* 10. Mr. DYKSTRA.

GRADUATE COURSES

13. RECONSTRUCTION OF THE SOUTH, 1863-1900. Two credit hours. Three terms. *Tu., Th., at* 11. Professor KNIGHT.

14. GRADUATE SEMINARY IN AMERICAN HISTORY AND INSTITUTIONS. Three terms. *Tu., at* 4. Professor KNIGHT.

II. POLITICAL SCIENCE

1. CONSTITUTIONAL GOVERNMENT. Three credit hours. Three terms. *M., W., F., at* 9 or 1. Prerequisite, American History 1, or European History 1, 2, and 3, or 14, or a substitute acceptable to the department. This course must precede all other courses in political science except 4. Professor SPENCER, Assistant Professor TANNER, Mr. DYKSTRA.

4. INTERNATIONAL LAW. Two credit hours. Three terms. *Tu., Th., at* 10. Prerequisite, one course in European history and one course in American history. Professor KNIGHT.

*6. THE GOVERNMENT OF COLONIES AND DEPENDENCIES. Two credit hours. Three terms. *Tu., Th., at* 3. Given biennially, alternating with Course 12. Assistant Professor TANNER.

8. MUNICIPAL GOVERNMENT AND PROBLEMS. Two credit hours. Three terms. *Tu., Th., at* 11. Given biennially, alternating with Course 13. Professor SPENCER.

*Not given in 1909-1910.

12. COMPARATIVE POLITICS. Two credit hours. Three terms. *Tu., Th., at* 3. Given biennially, alternating with Course 6. Assistant Professor TANNER.

*13. COMPARATIVE ADMINISTRATION. Two credit hours. Three terms. *Tu., Th., at* 11. Given biennially, alternating with Course 8. Professor SPENCER.

15. INTRODUCTION TO JURISPRUDENCE. Two credit hours. Three terms. *Tu., Th., at* 9. Professor SPENCER.

GRADUATE COURSES

10. POLITICAL THEORIES. Two credit hours. Three terms. *M., F., at* 3. Professor SPENCER.

16. SEMINARY IN POLITICAL SCIENCE. *M., at* 4. Professor SPENCER.

ANATOMY AND PHYSIOLOGY

(Office, Room 12, Biological Hall)

PROFESSOR BLEILE, ASSISTANT PROFESSOR SEYMOUR

1. HUMAN ANATOMY AND PHYSIOLOGY. Three credit hours. Three terms. *M., W., F., at* 8 or 9. Must be preceded or accompanied by a course in chemistry. Professor BLEILE, Assistant Professor SEYMOUR.

2. HUMAN ANATOMY, PHYSIOLOGY. Three credit hours. First term. *M., W., F., at* 9.

3. CHEMICAL PHYSIOLOGY. Three credit hours. Third term. *Th., F.,* 1 *to* 4. Professor BLEILE.

4. HISTOLOGY AND HISTO-CHEMISTRY. Five credit hours. Three terms. *M., Tu., W.,* 1 *to* 4. Professor BLEILE, Assistant Professor SEYMOUR.

5. MICROSCOPY AND URINARY ANALYSIS. Two credit hours. Third term. *Tu.,* 8 *to* 10. Professor BLEILE and Assistant Professor SEYMOUR.

9. PHYSIOLOGICAL LABORATORY. Three credit hours. Three terms. Professor BLEILE.

11. PHYSIOLOGICAL LABORATORY. Five credit hours. Three terms. Professor BLEILE.

14. COMPARATIVE PHYSIOLOGY. Three credit hours. First year, second and third terms. Professor BLEILE.

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*Not given in 1909-1910.

ANCIENT ART

(See Greek Language and Literature)

ANIMAL HUSBANDRY

(Townshend Hall.)

PROFESSOR PLUMB, PROFESSOR MARSHALL, MR. WILLIAMS

FOUR-YEAR COURSE

2. TYPES AND BREEDS OF HORSES AND SHEEP. Four credit hours. First term. *M., Tu., Th., at* 10; *W.,* 1 *to* 4. Professor PLUMB, Professor MARSHALL.

4. TYPES AND BREEDS OF CATTLE AND SWINE. Four credit hours. Third term. *M., W., F., at* 11; *Tu. or Th.,* 1 *to* 4. Professor PLUMB, Professor MARSHALL.

6. PRINCIPLES OF BREEDING. Four credit hours. Second term. *M., W., F., at* 11; *W.,* 1 *to* 4, or *Tu.,* 9 *to* 12. Professor MARSHALL.

8. FEEDING ANIMALS. Four credit hours. Second term. *M., Tu., Th., F., at* 10. Professor PLUMB.

10. HYGIENE AND MANAGEMENT. Four credit hours. Second term. *M., Tu., Th., F., at* 8. Professor MARSHALL.

12. ANIMAL CONFORMATION AND STOCK JUDGING. Four credit hours. First term. *W., at* 11; *M., F.,* 1 *to* 4. Professor MARSHALL.

14. LIVE STOCK MARKETING AND COMMERCE. Four credit hours. Third term. *M., W., F., at* 8; *F.,* 1 *to* 4. Professor PLUMB.

18. TYPES AND BREEDS OF LIVE STOCK. Five credit hours. Third year, third term. *M., Tu., Th., F., at* 8. Elective. Professor MARSHALL.

19. HORSE TRAINING. Two credit hours. First term. *Tu., Th., at* 9. Professor MARSHALL.

20. MEATS AND MEAT PRODUCTS. Two credit hours. Second term. *Tu., Th., at* 9. Professor PLUMB.

21. THE HARNESS AND VEHICLE. Two credit hours. Third term. *Tu., Th., at* 9. Professor MARSHALL.

22. BIOGRAPHICAL STUDIES OF MASTER BREEDERS. One credit hour. Third term. Time to be arranged. Professor PLUMB.

23. TYPES AND CLASSES OF CATTLE AND SHEEP. Four credit hours. First term. *M., W., F., at* 11; *Tu. or Th.,* 1 *to* 4. Mr. WILLIAMS.

24. TYPES AND CLASSES OF HORSES AND SWINE. Four credit hours. Second term. *M., W., F, at* 11; *Tu. or Th.,* 1 *to* 4. Professor MARSHALL, Mr. WILLIAMS.

26. DAIRY CATTLE Four credit hours. Third term. *M., Tu., Th., at* 10; *W.,* 1 *to* 4. Professor PLUMB, Mr. WILLIAMS.

TWO-YEAR COURSE

1. TYPES AND BREEDS OF LIVE STOCK. Four credit hours. Three terms. *M., W., F., at* 8; *Tu.,* 8 *to* 11, or *M.,* 1 *to* 4. Professor PLUMB.

3. FEEDING ANIMALS. Three credit hours. Second term. *M., W., F., at* 9. Mr. WILLIAMS.

5. PRINCIPLES OF BREEDING. Four credit hours. Third term. *M., W., F., at* 9. Laboratory to be arranged. Professor MARSHALL.

25. DAIRY CATTLE. Four credit hours. First term. *M., W., F., at* 9. Laboratory to be arranged. Professor PLUMB, Mr. WILLIAMS.

GRADUATE WORK IN ANIMAL HUSBANDRY will be provided in this department to suit the needs of the student, under the general rules of the University for this work. Special facilities, however, will be furnished in any one of the following, selected as a major subject, in connection with a minor study pursued in another department: (a) Breed, history, and development; (b) animal nutrition; (c) heredity in its application to the horse; (d) the education and training of the horse; (e) wool and its uses; (f) live stock registration; (g) live stock markets; (h) live stock judging.

ARCHITECTURE

(Office, Room 22, Brown Hall)

PROFESSOR BRADFORD, ASSOCIATE PROFESSOR CHUBB, MR. HASKETT

4. SPECIFICATIONS. Two credit hours. Architecture, fourth year, second term. *M.,* 1 *to* 5, and assigned work. Prerequisite, Architecture 18. Professor BRADFORD.

5. DECORATION AND ORNAMENT. Five credit hours. Architecture, third year, first term. *Tu., Th., at* 11; *M. F.,* 9 *to* 12. Prerequisite, Drawing 37 and Architecture 14. Associate Professor CHUBB.

9. HISTORY OF ARCHITECTURE. Three credit hours. Architecture, second year, first term. *M., W., F., at* 9. Professor BRADFORD.

10. Continuation of 9. Architecture, second year, second term. *M., W., F., at* 9. Professor BRADFORD.

11. Continuation of 10. Architecture, second year, third term. *M., W. F., at* 9. Professor BRADFORD.

12. THE ORDERS. Two credit hours. Architecture, second year, first term. *W., Th.,* 1 *to* 3. Concurrent, Drawing 33 and Architecture 9. Associate Professor CHUBB.

13. ORDER PROBLEMS. Three credit hours. Architecture, second year, second term. *W., Th., F.,* 1 *to* 4. Prerequisite, Architecture 12. Associate Professor CHUBB.

14. Continuation of 13. Three credit hours. Architecture, second year, third term. *W., Th., F.,* 1 *to* 4. Concurrent, Architecture 11. Associate Professor CHUBB.

15. RESIDENCE ARCHITECTURE. Four credit hours. Lectures and practice. Architecture, third year, first term. *M., Tu., W.,* 1 *to* 4. Prerequisite, Architecture 14, and Drawing 37. Professor BRADFORD.

17. SCHOOL ARCHITECTURE. Four credit hours. Architecture, third year, third term. *M., Tu., W.,* 1 *to* 4. Prerequisite, Architecture 23. Associate Professor CHUBB.

18. PUBLIC BUILDINGS. Four credit hours. Architecture, fourth year, first term. *W., Th., F.,* 1 *to* 4. Prerequisite, Architecure 17. Professor BRADFORD, Associate Professor CHUBB.

19. ECCLESIASTICAL ARCHITECTURE. Four credit hours. Architecture, fourth year, third term. *M., Tu.,* 1 *to* 5. Prerequisite, Architecture 21. Professor BRADFORD.

20. THESIS. Five credit hours. Architecture, fourth year, third term. *Tu., Th.,* 9 *to* 12, *F.,* 1 *to* 5.

21. ARCHITECTURE OF TALL SKELETON-CONSTRUCTED BUILDINGS. Four credit hours. Architecture, fourth year, second term. *M., at* 10, *Tu., Th.,* 9 *to* 11, *F.,* 1 *to* 5. Prerequisite, Architecture 18. Professor BRADFORD, Associate Professor CHUBB.

22. PRINCIPLES OF ARCHITECTURAL COMPOSITION. Two credit hours. Architecture, third year, first term. *Tu., Th., at* 9. Concurrent, Architecture 5. Associate Professor CHUBB.

23. DESIGNING. Modern apartment houses. Four credit hours. Architecture, third year, second term. *Tu.,* at 11, *M.,* 1 *to* 5, *S.,* 8 *to* 12. Prerequisite, Architecture 15. Associate Professor CHUBB.

24. STRUCTURAL DETAILS. Five credit hours. Architecture,

third year, third term. *Tu., Th., at* 10, *M., F.,* 8 *to* 11. Prerequisite, Architecture 15. Professor BRADFORD.

25. SANITARY PLUMBING. Two credit hours. Architecture, fourth year, first term. *M., W., at* 8. Professor BRADFORD.

26. ARCHITECTURAL PERSPECTIVE. Five credit hours. Architecture, second year, third term. *M., F., at* 10; *Tu., Th.,* 9 *to* 12. Associate Professor CHUBB.

27. ARCHITECTURAL STEREOTOMY. Four credit hours. Architecture, third year, second term. *W., at* 11, *M. F.,* 9 *to* 12. Prerequisite, Drawing 36. Professor BRADFORD.

28. ESTIMATING. Two credit hours. Course in Architecture, fourth year, third term. *W., at* 11, *F.,* 10 *to* 12. Professor BRADFORD.

29. PROFESSIONAL PRACTICE. Two credit hours. Architecture, fourth year, third term. *Tu., Th., at* 8. Professor BRADFORD.

30. MONUMENTAL DESIGN. Three credit hours. Architecture, fourth year, first term. *M., Tu.,* 1 *to* 4. Prerequisite, Architecture 17. Professor BRADFORD, Associate Professor CHUBB.

31. SUMMER WORK. The equivalent of four weeks of work in an architect's office, eight hours a day. Summer vacation at end of sophomore or junior year.

32. SUMMER WORK. Working up a problem in design, assigned by the department, or a report on summer travel. Summer vacation at end of sophomore or junior year.

33. PHOTOGRAPHY. Two credit hours. Architecture and Ceramic Engineering, third year, first term. *Th., F.,* 1 *to* 3. Civil Engineering, third year, second term. *M., Tu.,* 1 *to* 3; *Th., F.,* 1 *to* 3. Mechanical Engineering, third year, third term. Mine Engineering, fourth year, third term. *M., Tu.,* 1 *to* 3; *Th., F.,* 1 *to* 3. Prerequisite, Chemistry 7. Mr. HASKETT.

*34. SHADES AND SHADOWS. Two credit hours. Architecture, second year, first term. Associate Professor CHUBB.

*35. WORKING DRAWINGS. Three credit hours. Architecture, third year, second term. Professor BRADFORD.

36. PHOTOGRAPHY. Two or three credit hours. Second term. Prerequisite, Course 33 or an equivalent.

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* Not given in 1909-1910.

ART

(Office, Hayes Hall)

ASSOCIATE PROFESSOR LAVER, ASSISTANT PROFESSOR TITSWORTH

1. THE TEACHING OF ART. Three credit hours. First term. Prerequisites: Art 16, 17, 18, 40, 41, and 42.

Theory; Psychology and Pedagogy of Art; its influence in the home, school, and society; relation to other studies; methods of teaching; planning lessons and courses; theory of criticism.

Practical work: Students teach under criticism after observation of expert teaching.

2. THE TEACHING OF ART. Two credit hours. Second term. Prerequisites, same as for Art 1.

3. THE TEACHING OF ART. Two credit hours. Third term. Prerequisites, same as for Art 1.

4. ART APPRECIATION. One credit hour. Three terms. *M., at* 4. Open to all students; recommended to all students having six credits in Art; required of all studentts having twelve credits in Art.

10. DESIGN AND COMPOSITION. Two credit hours. First term. *M. or W. or Th.,* 1 *to* 4.

11. Continuation of 10. Two credit hours. Second term. *M. or W. or Th.,* 1 *to* 4.

12. Continuation of 11. Two credit hours. Third term. *M. or W. or Th.,* 1 *to* 4.

13. DESIGN AND COMPOSITION. Two credit hours. First term. Advanced work in Art 10 Prerequisite, Art 10.

14. DESIGN AND COMPOSITION. Two credit hours. Second term. Advanced work in Art 11. Prerequisite, Art 11.

15. DESIGN AND COMPOSITION. Two credit hours. Third term. Advanced work in Art 12. Prerequisite, Art 12.

16. DESIGN AND COMPOSITION. Three credit hours. First term. *F.,* 1 *to* 4.

17. DESIGN AND COMPOSITION. Three credit hours. Second term. *F.,* 1 *to* 4. Figure and animal motives. Prerequisites, same as for Art 16.

18. DESIGN AND COMPOSITION. Three credit hours. Third term. *F.,* 1 *to* 4. Landscape. Prerequisites, same as for Art 16.

20. CHARCOAL DRAWING FROM STILL LIFE, NATURE, AND CASTS. One to three credit hours. First term. Time to be arranged.

21. CHARCOAL DRAWING FROM COSTUMED MODEL. One to three credit hours. Second term. Time to be arranged.

22. CHARCOAL DRAWING. LANDSCAPE AND STILL LIFE. One to three credit hours. Third term. Time to be arranged.

30. PENCIL DRAWING FROM STILL LIFE AND NATURE. One credit hour. First term. Time to be arranged.

31. PENCIL DRAWING FROM LIFE AND STILL LIFE. One credit hour. Second term. Time to be arranged.

32. PENCIL DRAWING OUT OF DOORS. One credit hour. Third term. Time to be arranged.

35. PAINTING IN OIL OR WATER COLOR. One to three credit hours. First term. Time to be arranged.

36. Continuation of 35. One to three credit hours. Second term. Time to be arranged.

37. LANDSCAPE. One to three credit hours. Third term. Time to be arranged.

40. STILL LIFE AND NATURE IN CHARCOAL, PENCIL, INK, WATER COLOR, AND OIL. First term. Rapid Sketching. Blackboard Drawing. Prerequisite, Art 20, 21, and 22, or their equivalent.

41. FIGURE AND ANIMAL STUDIES IN CHARCOAL, PENCIL, INK, WATER COLOR, AND OIL. Second term. Rapid Sketching and Blackboard Drawing. Prerequisite, same as for Art 40.

42. LANDSCAPE IN ALL MEDIUMS. Third term. Rapid Sketching. Blackboard Drawing. Prerequisites, same as for Art 40.

43. STILL LIFE AND NATURE PAINTING. Four credit hours. First term. Prerequisites, Art 40, 41, and 42.

44. PAINTING FROM LIFE. Four credit hours. Second term. Prerequisites, same as for Art 43.

45. PAINTING FROM LIFE AND OUT-OF-DOORS. Four credit hours. Third term. Prerequisites, same as for Art 43.

50. DESIGN AND COMPOSITION. Three credit hours. First term. Advanced work along lines given in Art 16. Prerequisites, Art 16, 17, and 18.

51. DESIGN AND COMPOSITION. Three credit hours. Second term. Advanced work along lines given in Art 17. Prerequisites, same as for Art 50.

52. DESIGN AND COMPOSITION. Three credit hours. Third term. Advanced work along lines given in Art 18. Prerequisites, same as for Art 50.

ASTRONOMY

(Office, Emerson McMillin Observatory)

PROFESSOR H. C. LORD, ASSISTANT PROFESSOR MANSON

1. GENERAL ASTRONOMY. Three credit hours. Three terms. *M., W., F., at* 9. Assistant Professor MANSON.

2. ASTRONOMY, GEODESY, AND LEAST SQUARES. Three credit hours. Second term. *M., W., F., at* 11, *or M., Tu., Th., at* 10. Professor LORD and Assistant Professor MANSON.

4. ASTRONOMY, GEODESY, AND LEAST SQUARES. Three credit hours. Civil Engineering, third year, first term. Lectures, *M., Tu., Th., at* 10, *or M., W., F., at* 11. Laboratory hours arranged with the students individually Prerequisite, Mathematics 43 and Physics 2. Professor LORD, Assistant Professor MANSON.

5. Continuation of 4. Three credit hours. Civil Engineering, third year, second term. Lectures, *M., Tu., Th., at* 10, *or M., W., F., at* 11 Professor LORD, Assistant Professor MANSON.

6. Continuation of 5. Laboratory work. Four credit hours. Civil Engineering, fourth year, third term. Lectures, *M., Tu., Th., at* 10, *or M., W., F., at* 11. Professor LORD, Assistant Professor MANSON.

7. ADVANCED ASTRONOMY. Three to five credit hours. Three terms. Prerequisite, calculus. Professor LORD.

BACTERIOLOGY

(Second Floor, Veterinary Hall)

PROFESSOR MORREY

1. BACTERIOLOGY. Two credit hours. First and second terms. First term. *M., F., at* 10; second term, *M., at* 10; *F.,* 1 *to* 4.

2. AGRICULTURAL BACTERIOLOGY. Three credit hours. Second term. For two years courses in Agriculture and Horticulture.

4. BACTERIOLOGY. Five credit hours. Second year, first term.

4a. BACTERIOLOGY. Three credit hours. Third term, third year. A review of the bacteria pathogenic to animals. Associate Professor MCCAMPBELL.

5. GENERAL BACTERIOLOGY. Three to five credit hours. First term. Lectures, *Tu., at* 9 *or M., at* 11; quiz, *Th., at* 9 *or F., at* 11;

laboratory, *Tu., Th., or W., F.*, 1 *to* 4. Professor MORREY, Associate Professor MCCAMPBELL, Mr. GROSVENOR.

6. IMMUNITY AND SERUM THERAPY. Three to five credit hours. Three terms. Lectures, *M., W., F., at* 11, first and second terms; third term, *M., W., Th., at* 11; laboratory, to be arranged. Prerequisites, 5 and 7, or equivalents. Associate Professor MCCAMPBELL.

7. PATHOGENIC BACTERIA. Three to five credit hours. Second and third terms. Same time as Course 5. Prerequisite, 5. Professor MORREY, Associate Professor MCCAMPBELL, Mr. GROSVENOR.

8. DAIRY BACTERIOLOGY. Three to five credit hours. Second and third terms. Lecture, *M., at* 10; quiz, *F., at* 10; laboratory, *Tu., Th.*, 1 *to* 4. Prerequisite, Course 5. Professor MORREY.

9. SOIL BACTERIOLOGY. Three to five credit hours. Second and third terms. Lecture, *Tu., at* 10; quiz, *Th., at* 10; laboratory, *Tu., Th.*, 1 *to* 4. Prerequisite, Course 5. Professor MORREY.

10. WATER EXAMINATION, SEWAGE DISPOSAL, WATER FILTRATION. Three to five credit hours. Second and third terms. Prerequisite, 5. Lecture, *Tu., at* 11; quiz, *Th., at* 11; laboratory, *M., W.*, 1 *to* 4. Professor MORREY.

11. BACTERIOLOGICAL CHEMISTRY (enzymes). Three to five credit hours. Second and third terms. One lecture, one quiz, two to six hours laboratory work. Prerequisite, 5. Time to be arranged. Professor MORREY.

12. PATHOGENIC PROTOZOA. Three to five credit hours. Three terms. Two lectures, two to six hours laboratory work. Prerequisites, 5 and 7, or equivalents. Associate Professor MCCAMPBELL.

13. ADVANCED DAIRY BACTERIOLOGY. Three to five credit hours. Three terms. Prerequisites, Courses 5 and 8, or equivalents. Professor MORREY.

14. ADVANCED SOIL BACTERIOLOGY. Three to five credit hours. Three terms. Prerequisites, Courses 5 and 9, or equivalents. Professor MORREY.

15. SPECIAL PROBLEMS IN BACTERIOLOGICAL CHEMISTRY. Three to five credit hours. Three terms. Conferences, library, and laboratory work. Prerequisites, 5 and 7, or equivalents. Professor MORREY.

BOTANY
(Botanical Hall)

ASSOCIATE PROFESSOR SCHAFFNER, ASSISTANT PROFESSOR GRIGGS, ASSISTANT PROFESSOR DACHNOWSKI, MISS DETMERS

1. ELEMENTARY BOTANY. Four credit hours. Third term. *M., W., F., at* 8. Laboratory arranged. Miss DETMERS.

6. GENERAL BOTANY. Four credit hours. First term. Text-books, Curtis' Nature and Development of Plants, Schaffner's Laboratory Outlines for General Botany. *M., at* 10; *M., F.,* 1 *to* 4, or *Tu., Th.,* 1 *to* 4, or *Tu., Th.,* 9 *to* 12. Assistant Professor GRIGGS.

7. Continuation of Course 6. Four credit hours. Second term. Time same as Course 6.

8. PLANT PATHOLOGY. Four credit hours. Third term. Time same as Course 6. Assistant Professor GRIGGS.

9. DENDROLOGY. Two or three credit hours. Third term. *W.,* 1 *to* 4. Associate Professor SCHAFFNER, Miss DETMERS.

11. LABORATORY WORK IN ECONOMIC BOTANY. Two to five credit hours. Three terms. Laboratory open daily.

13. MORPHOLOGICAL AND ECONOMIC BOTANY. Three terms. Three credit hours. Text-books, Curtis' Nature and Development of Plants, Schaffner's Laboratory Outlines for General Botany. *W.,* 1 *to* 4; *M.,* 1 *to* 3. Miss DETMERS.

15. EDIBLE AND POISONOUS MUSHROOMS Two credit hours. Laboratory and field work. Three terms. Prerequisite, Course 21 or equivalent. Laboratory open daily. Associate Professor SCHAFFNER, Miss DETMERS.

17. FOREST BOTANY. Three terms. Four credit hours. Lectures *Tu., Th., at* 3. Laboratory, *Tu., Th.,* 1 *to* 3. Prerequisite, 6, 7, 8, or 21. Assistant Professor DACHNOWSKI.

20. FIELD WORK ON LOCAL FLORA. Two credit hours. First or third term. *S.,* all day. Prerequisite, Elementary Botany, Assistant Professor GRIGGS.

21. GENERAL BOTANY. Three credit hours. Three terms. Lecture, *W., at* 9; laboratory, *Tu., Th.,* 8 *to* 10. Text-books: Curtis' Nature and Development of Plants, Schaffner's Laboratory Outlines for General Botany. Associate Professor SCHAFFNER.

24. PLANT PHYSIOLOGY. Three to five credit hours. Three terms. Laboratory and field work. Prerequisite, Courses 6, 7, 8, or 21, or equivalent. Time to be arranged. Assistant Professor DACHNOWSKI.

25. ADVANCED MORPHOLOGY. Three to five credit hours. Three terms. Laboratory, *W.*, 1 *to* 4. Other hours to be arranged. Prerequisite, Courses 6, 7, 8, or 21, or equivalent. Assistant Professor GRIGGS.

26. CYTOLOGY AND MICROTECHNIQUE. Five credit hours. Three terms. Laboratory open daily. Prerequisite, Course 25. Associate Professor SCHAFFNER.

27. SYSTEMATIC BOTANY. Three to five credit hours. Three terms. Laboratory open daily. Prerequisite, Courses, 6, 7, 8, or 21. Associate Professor SCHAFFNER.

28. MINOR INVESTIGATIONS. One to three credit hours. Three terms. Prerequisite, Courses 6, 7, 8, or 21. Time to be arranged. Associate Professor SCHAFFNER, Assistant Professor GRIGGS, Assistant Professor DACHNOWSKI.

37. GENERAL AND PHARMACEUTICAL BOTANY. Four credit hours. Three terms. *Tu., Th., at* 8; *Tu., Th.,* 10 *to* 12. Text-books: Curtis' Nature and Development of Plants, Schaffner's Laboratory Outlines for General Botany. Assistant Professor DACHNOWSKI.

FOR GRADUATES

28. RESEARCH IN SYSTEMATIC BOTANY. Five credit hours. Three terms. Laboratory open daily. Prerequisite, Courses 6, 7, 8, or 21. Associate Professor SCHAFFNER.

29. RESEARCH IN MORPHOLOGY AND CYTOLOGY. Three to ten credit hours. Three terms. Laboratory open daily. Prerequisite, 26 or equivalent. Associate Professor SCHAFFNER, Assistant Professor GRIGGS.

30. MONOGRAPHIC WORK. Five to ten credit hours. Three terms. Prerequisite, Course 27, or equivalent. Associate Professor SCHAFFNER.

31. RESEARCH IN PHYSIOLOGY AND ECOLOGY. Five to ten credit hours. Three terms. Prerequisite, Courses 24 or 25, or equivalent. Assistant Professor DACHNOWSKI.

35. EVOLUTION OF PLANTS. One credit hour. Lectures. Prerequisite, any one year course in botany. Three terms. *M., at* 4. Associate Professor SCHAFFNER.

36. SEMINARY.. One credit hour. Three terms. Prerequisite any one year course in botany. Time to be arranged.

This course should be elected only in connection with other advanced work.

CERAMIC ENGINEERING
(Office, Room 119, School of Mines Building)

PROFESSOR ORTON, ASSOCIATE PROFESSOR PURDY, MR. WORCESTER

1. CERAMIC CHEMISTRY. Five credit hours. Ceramic Engineering and Short Clay-working, second year, first term. *M., Tu., W.,* 1 *to* 4. Prerequisite, Chemistry 12 or 45. Associate Professor PURDY.

2. Continuation of 1. Five credit hours. Ceramic Engineering and Short Clay-working, second year, second term. *M., Tu., W.,* 1 *to* 4. Associate Professor PURDY.

3. Continuation of 2. Three credit hours. Ceramic Engineering, second year, third term. *M., Tu., W.,* 1 *to* 4. Associate Professor PURDY.

4. CLAY MANUFACTURE. Five credit hours. Ceramic Engineering, third year, first term; Short Clay-working, second year, first term. *M., Tu., W., Th., F., at* 8. Concurrent, Ceramics 1. Professor ORTON.

5. Continuation of 4. Five credit hours. Ceramic Engineering, third year; Short Clay-working, second year, second term. *M., Tu., W., Th., F., at* 9. Professor ORTON.

6. Continuation of 5. Five credit hours. Ceramic Engineering, third year; Short Clay-working, second year, third term. *M., Tu., W., Th., F., at* 9. Professor ORTON.

9. LABORATORY WORK IN CERAMICS. Five credit hours. Ceramic Engineering, fourth year, first term. *M., Th., F.,* 1 *to* 4. Prerequisite, Ceramics 3 and 6. Professor ORTON, Mr. WORCESTER.

10. Continuation of 9. Five credit hours. Ceramic Engineering, fourth year, second term. *M., W., F.,* 1 *to* 4. Professor ORTON, Mr. WORCESTER.

11. Continuation of 10. Five credit hours. Alternative with Ceramics 12. Ceramic Engineering, four year, third term. *M. W., F.,* 1 *to* 4. Professor ORTON, Mr. WORCESTER.

12. CEMENT MANUFACTURE. Five credit hours. Alternative with Ceramics 11. Ceramic Engineering, fourth year, third term. *M., Tu., W., Th., F., at* 8. Prerequisite, Ceramics 3 and 6. Associate Professor PURDY.

15. THESIS.. *M., F.,* 9 *to* 12, *Th.,* 10 *to* 12.

18. CEMENT MANUFACTURE. Five credit hours. Elective course. Laboratory. Time to be arranged. Prerequisite, Ceramics 12. Associate Professor PURDY.

19. STOICHIOMETRY. Five credit hours. Short Clay-working, second year, third term. *M., Tu., Th., F., at* 10, and *Tu., at* 11. Prerequisite, Ceramics 1 and 2. Associate Professor PURDY.

20. LABORATORY WORK IN CERAMICS. Two credit hours. Short Clay-working, second year, first term. *Th., F.,* 1 *to* 4. Prerequisite, Chemistry 45. Concurrent, Ceramics 1. Professor ORTON, Mr. WORCESTER.

21. LABORATORY WORK IN CERAMCS. Two credit hours. Short Clay-working, second year, second term. *Th., F.,* 1 *to* 4. Prerequisite, Ceramics 20. Professor ORTON, Mr. WORCESTER.

23. LABORATORY WORK IN CERAMICS. Four credit hours. Short Clay-working, second year, third term. *M., W., F.,* 1 *to* 4. Prerequisite, Ceramics 2 and 5. Professor ORTON, Mr. WORCESTER.

24. CERAMIC CALCULATIONS. Two credit hours. Ceramic Engineering, second year, third term. *Tu., Th., at* 10. Prerequisite, Ceramics 2. Concurrent, Ceramics 3. Associate Professor PURDY.

25. CLASSIFICATION AND IDENTIFICATION OF CLAYS. Three credit hours. Ceramic Engineering, third year, second term. *Tu.,* 1 *to* 4, *S.,* 8 *to* 12. Prerequisite, Ceramics 4. Concurrent, Ceramics 5. Professor ORTON, Mr. WORCESTER.

26. PHYSICAL AND CHEMICAL MEASUREMENTS OF CLAYS. Five credit hours. Ceramics, third year, third term. *W., Th., F.,* 1 *to* 4. Prerequisite, Chemistry 30, Physics 2 and 3, and Ceramics 5. Associate Professor PURDY.

27. CLAY MANUFACTURE. Three credit hours. Ceramic Engineering, third year, third term. Short Clay-working, second year, third term. *M., W., F., at* 11. Prerequisite, Ceramics 2 and 5. Professor ORTON.

CHEMISTRY

(Office, Chemistry Hall)

PROFESSOR MCPHERSON, EMERITUS PROFESSOR NORTON, PROFESSORS HENDERSON, FOULK, ASSOCIATE PROFESSOR EVANS, ASSISTANT PROFESSOR WITHROW, MR. VOGT, MR. MORRIS, MR. LUCAS, MR. SALE, AND DEPARTMENT FELLOWS

3. ELEMENTARY CHEMISTRY. Four credit hours. First and second terms. One lecture, one quiz, six hours laboratory work weekly. Lectures, *M., at* 10; quiz, *Th., at* 8 *or* 10. Laboratory, *M., Tu.,* 1 *to* 4, *or Th., F.,* 1 *to* 4, *or W.,* 8 *to* 10, *S.,* 8 *to* 12. Associate Professor EVANS, Assistant Professor WITHROW, Mr. VOGT, Mr. MORRIS, and department fellows.

This course is distinctly elementary in character, and is arranged for students in short courses only. No credit is allowed for it in the regular four year courses.

7. ELEMENTARY CHEMISTRY. Four credit hours. First and second terms. One lecture, one quiz, six hours laboratory work weekly. Lecture, *M., at* 8 *or* 3; quiz, *Tu., at* 8 *or* 11; *Th., at* 3; *F., at* 8, 9, 10, 1, *or* 3. Laboratory, *M., F.,* 9 *to* 12; *Tu., Th.,* 9 *to* 12; *M., Tu.,* 1 *to* 4; *Th., F.,* 1 *to* 4; *or W.,* 1 *to* 4, *S.,* 8 *to* 11. Associate Professor EVANS, Assistant Professor WITHROW, Mr. VOGT, Mr. MORRIS, and department fellows.

This course is arranged for students who have not presented chemistry as an entrance requirement. Students taking this course will follow with Course 12, third term.

44. GENERAL CHEMISTRY. Four credit hours. First and second terms. One lecture, one quiz and six hours laboratory work weekly. Lecture, *W., at* 9; quiz, *Th.,* 8 *or* 3; *F.,* 8, 10, 1, *or* 3; laboratory, same as for Chemistry 7. Professors MCPHERSON, HENDERSON, Associate Professor EVANS, Assistant Professor WITHROW, Mr. VOGT, Mr. MORRIS, and department fellows.

This course is arranged for students who have had an acceptable course in elementary chemistry in a secondary school. Students taking this course will follow with Course 12, the third term.

12. QUALITATIVE ANALYSIS. Four credit hours. Third term. One lecture, one quiz, six hours laboratory work weekly. Prerequisite, Chemistry 7 or 44. Lecture, *M., at* 8 *or* 3; *W., at* 9; quiz, to be assigned; laboratory hours, same as scheduled for Chemistry 7 or 44. Associate Professor EVANS, Assistant Professor WITHROW, Mr. VOGT, Mr. MORRIS, and department fellows.

45. QUALITATIVE ANALYSIS. Four credit hours. Third term. One lecture, one quiz, six hours laboratory work weekly. Prerequisite, Chemistry 3. Time same as Chemistry 3. Associate Professor EVANS, Assistant Professor WITHROW, Mr. VOGT, Mr. MORRIS, and department fellows.

21. ADVANCED GENERAL CHEMISTRY. Two credit hours. First, second, and third terms. Two lectures weekly. *Tu., Th., at* 11. Prerequisite, Chemistry 7 or 44. Professor HENDERSON.

37. QUALITATIVE ANALYSIS. Four credit hours. First term. One lecture, nine hours laboratory work weekly. Time to be arranged. Prerequisite, Chemistry 7 or 44. Professor FOULK, Mr. SALE.

20. QANTITATIVE ANALYSIS. Four credit hours. First, sec-

ond and third terms. One lecture, nine hours laboratory work weekly. Lecture, *M., at* 1. Laboratory open forenoons and afternoons. Prerequisite, Chemistry 12 or 37. Professor FOULK, Mr. SALE.

40. CHEMICAL PROBLEMS. One credit hour. First and second terms. *F., at* 11. Professor FOULK.

34. ORGANIC CHEMISTRY. Five credit hours. First term. Lectures, *W., F., at* 8; quiz to be arranged; laboratory, first term, *M., Tu.,* 1 *to* 4, *or Th., F.,* 1 *to* 4; second term, *M., Tu.,* 1 *to* 4. Second year, Domestic Science.

42. ELEMENTARY ORGANIC CHEMISTRY. Two credit hours. Third term. *M., F., at* 9. Associate Professor EVANS.

46. ORGANIC CHEMISTRY. Two credit hours. First, second, and third terms. Two lectures weekly. *Tu., Th., at* 10. Prerequisite, Courses 20, and 21, except by special permission of the instructor. Professor MCPHERSON.

47. ORGANIC CHEMISTRY. Two or three credit hours. First, second, and third terms. Six or nine hours laboratory work weekly. Laboratory open afternoons. This course must be accompanied or preceded by Course 46. Professor MCPHERSON, Mr. LUCAS.

15. SANITARY ANALYSIS. Four credit hours. Third term. Two lectures, four hours laboratory work weekly. Lectures, *Tu., Th., at* 10. Laboratory open forenoons and afternoons. Prerequisite, Chemistry 20. Professor FOULK.

48. QUALITATIVE ANALYSIS. Advanced course. Three to five credit hours. Third term. One lecture, six to twelve hours laboratory work weekly. Time to be arranged. Prerequisite, Chemistry 20. Professor FOULK.

49. QUANTITATIVE ANALYSIS. Advanced course. Three to five credit hours. First and second terms. One lecture, four to twelve hours laboratory work weekly. Time to be arranged. Prerequisite, Chemistry 20. Professor FOULK.

30. PHYSICAL CHEMISTRY. Three credit hours. First and second terms. Three lectures weekly. *M., W., F., at* 8. Prerequisite, Chemistry 20, 21; also Course 46, except by special permission of the instructor. Professor HENDERSON.

50. PHYSICAL CHEMISTRY. Three credit hours. Third term. Nine hours laboratory work weekly. Time to be arranged with instructor. Prerequisite, Chemistry 30. Professor HENDERSON.

32. INDUSTRIAL CHEMISTRY. Four credit hours. First and

second terms. Two lectures, six hours laboratory work weekly. *Tu., Th., at* 8. Laboratory, *W., Th.,* 1 *to* 4. Prerequisite, Chemistry, 20, 21, 46, 47. Assistant Professor WITHROW.

35. RARE ELEMENTS. Three credit hours. Third term. Three lectures weekly. *M., W., F., at* 8. Prerequisite, Chemistry 20 and 21. Professor HENDERSON.

36. THE TEACHING OF CHEMISTRY. Two credit hours. Third term. Two lectures weekly. Time to be arranged with instructor. Prerequisite, permission of the instructor. Professor MCPHERSON.

71. TECHNICAL ANALYSIS. Four credit hours. Third term. One lecture, nine hours laboratory work weekly. Lecture, *Tu., at* 11. Laboratory open all day. Prerequisite, Course 20. Professor FOULK.

17. INORGANIC PREPARATIONS. Two or three credit hours. First or second terms. Six to nine hours laboratory work weekly. Laboratory open afternoons. Prerequisite, Courses 20, 21. Professor HENDERSON.

72. APPLIED ELECTRO-CHEMISTRY. Three credit hours. Second and third terms. One lecture, six hours laboratory work weekly. Time to be arranged with instructor. Prerequisite, Courses 20, 21, 46, 47. Assistant Professor WITHROW.

77. THE READING OF CHEMICAL LITERATURE. Two credit hours. Second term. Time to be arranged. Prerequisite, German 1. Professor FOULK.

78. INDUSTRIAL INSPECTION TRIPS. A four to six days excursion taken at a suitable time in connection with Chemistry 32 for the inspection of industrial chemical processes in actual operation. The entire expense varies from $15 to $30. A satisfactory written report on the work inspected is required.

79. WRITTEN REPORTS. A course of assigned reading upon some industrial chemical process and a written report on same. This course is a substitute for course 78, but the substitution is only allowed upon presentation of reasons satisfactory to the head of the department.

FOR GRADUATES

41. PHYSICAL CHEMISTRY. Three credit hours. First, second, and third terms. Nine hours laboratory work weekly. Time to be arranged. Prerequisite, Chemistry 30. Professor HENDERSON.

29. RESEARCH WORK. Five to ten credit hours. First, second, and third terms. Library and laboratory work. Time arranged

with instructor. Professors McPHERSON, HENDERSON and FOULK, Associate Professor EVANS and Assistant Professor WITHROW.

27. ORGANIC CHEMISTRY. Advanced course. Three to five credit hours. First, second, and third terms. Library and laboratory work. Time arranged with instructor. Prerequisite, courses 46 and 47. Professor McPHERSON.

25. HISTORICAL CHEMISTRY. Two credit hours. Second term. Two lectures weekly, *Tu., Th., at* 8. Prerequisite, Courses 30, 46, and 47. Professor HENDERSON.

26. CHEMICAL SEMINARY. One credit hour. First, second, and third terms. *W., at* 11.

*28. ORGANIC CHEMISTRY. Two credit hours. Third term. Two lectures weekly. Prerequisite, permission of the instructor in charge. Professor McPHERSON.

73. INORGANIC PREPARATIONS. Three credit hours. First, second, and third terms. Library and laboratory work. Time to be arranged with instructor. Prerequisite, Course 17. Professor HENDERSON.

74. INORGANIC CHEMISTRY. Two credit hours. First term. Two lectures weekly. *Tu., Th., at* 8. Prerequisite, Course 30. Professor HENDERSON.

75. ANALYTICAL CHEMISTRY. Two credit hours. Second term. Two lectures weekly. Time to be arranged. Prerequisite, permission of the instructor. Professor FOULK.

76. ORGANIC CHEMISTRY. Two credit hours. Third term. Two lectures weekly. Time to be arranged. Prerequisite, permission of the instructor in charge. Associate Professor EVANS.

CIVIL ENGINEERING

(Office, Brown Hall, Room 33)

PROFESSOR SHERMAN, PROFESSOR ENO, PROFESSOR MORRIS, ASSISTANT PROFESSOR SCHLAFLY, ASSISTANT PROFESSOR CHAMBERLIN, MR. WARD, MR. SHOEMAKER

3. TOPOGRAPHIC SURVEYING. Four credit hours. Lectures, field work, and drawing. Johnson's Surveying used for reference. Civil Engineering, third year, first term. *M., F., at* 10, *M., Tu., W.,* 1 *to* 4, *or Tu., Th., at* 11, *Th., F.,* 1 *to* 4, *S.,* 8 *to* 11. Prerequisite, Civil Engineering 32 and 22. Assistant Professor SCHAFLY, Asistant Professor CHAMBERLIN.

*Not given in 1909-1910.

4. TOPOGRAPHICAL DRAWING. Four credit hours. Platting, pen and tinted work. Reed's Topographic Drawing and Sketching. Civil Engineering, second year, second term. *M., Tu., W.*, 1 *to* 4, *or Th., F.*, 1 *to* 4, *S.*, 8 *to* 11. Prerequisite, Drawing 26 and 32. Professor SHERMAN, Professor ENO.

6. STEREOTOMY. Four credit hours. Recitations, lectures, and drawing. Warren's Stereotomy. Civil Engineering, third year, second term. *M., F., at* 10, *S.*, 8 *to* 12, *or Tu., Th., at* 11, *S.*, 8 *to* 12. Prerequisite, Drawing 36. Assistant Professor SCHAFLY, Assistant Professor CHAMBERLIN.

7. BRIDGE STRESSES. Five credit hours. Recitations and lectures. Heller's Stresses in Structures. Civil Engineering, third year, third term. *M., Tu., W., Th., F.*, 8 *or* 9. Prerequisite, Mechanics 2. Professor MORRIS.

8. BRIDGE DESIGNING. Five credit hours. Lectures and drawing. Morris's Notes and Johnson's Modern Framed Structures used for reference. Civil Engineering, fourth year, first term. *M., Tu., W., Th., F., at* 8 *or* 9. Prerequisite, Civil Engineering 7. Professor MORRIS.

10. SANITARY ENGINEERING. Five credit hours. Recitations and lectures. Folwell's Sewerage. Civil Engineering, third and fourth years, third term. *M., Tu., W., Th., F., at* 9, 1, *or* 2. Prerequisite, Civil Engineering 34. Professor ENO.

14. CIVIL ENGINEERING LABORATORY. Two credit hours. Civil Engineering, fourth year, second term. *M.*, 1 *to* 4, *Tu., at* 1; *Tu.*, 1 *to* 4, *W., at* 1; *W.*, 1 *to* 4, *Th., at* 1; *Th.*, 1 *to* 4, *F., at* 10. Prerequisite, Civil Engineering 34. Professor ENO, Mr. WARD.

Cement testing and adjustment of instruments.

16. HIGHWAYS. Four credit hours. Recitations and lectures. Baker's Roads and Pavements. Civil Engineering, third year, first term. *M., Tu., W., Th., F., at* 8 *or* 9. Prerequisite, Civil Engineering 32. Professor ENO.

17. RAILWAY LOCATION. Five credit hours. Recitations and lectures. Wellington's Economic Theory of Railway Location. Option, Civil Engineering, fourth year, second term. *M., Tu., W., Th., F., at* 9. Prerequisite, Civil Engineering 34. Professor SHERMAN.

18. WATER SUPPLY. Five credit hours. Recitations and lectures. Turneaure and Russell's Public Water Supplies. Civil Engineering, fourth year, third term. *M., Tu., W., Th., F., at* 8. Prerequisite, Civil Engineering 34. Professor ENO.

19. TRUSSES. Five credit hours. Lectures and drawing. Ceramic Engineering, fourth year, second term. *M., Tu., W., Th., F., at* 9. Architecture, Mining, and Mechanical Engineering, third year, third term. *M., Tu., Th., F., at* 10, *W., at* 2 *or M., Tu., W., Th., F., at* 11. Prerequisite, Mechanics 2. Professor SHERMAN, Professor MORRIS.

21. SURVEYING. Three credit hours. Architecture and Industrial Arts, fourth year, third term. *M., W., F., at* 9. Prerequisite, Drawing 32 and Mathematics 14 or 32. Assistant Professor CHAMBERLIN, Mr. WARD.

22. SUMMER FIELD WORK. At conclusion of second year of course in Civil Engineering. Prerequisite, Civil Engineering 32 and 4. Professor SHERMAN, Professor ENO, Assistant Professor SCHLAFLY, Assistant Professor CHAMBERLIN, Mr. WARD.

23. ADVANCED SUMMER FIELD WORK. Similar to 22. At conclusion of third year of course in Civil Engineering. Prerequisite, Civil Engineering 3, 22, and 24.

24. TIMBER CONSTRUCTION. Four credit hours. Civil Engineering, third year, second term. *M., Tu., W.,* 1 *to* 5 *or W., Th., F.,* 1 *to* 5. Prerequisite, Drawing 35 and Mechanics 1. Assistant Professor SCHLAFLY, Assistant Professor CHAMBERLIN.

25. ADVANCED BRIDGE WORK. Five credit hours. Draw-spans, continuous girders, steel arches, etc. Option, Civil Engineering, fourth year, second term. *M., Tu., W., Th., F., at* 8. Prerequisite, Civil Engineering 8. Professor MORRIS.

27. TIMBER AND MASONRY. Three credit hours. Industrial Arts and Mechanical Engineering, third year, last three-fifths of second term. *M., Tu., W., Th., F., at* 9. Concurrent, Industrial Arts 4 or Mechanics 2. Professor ENO, Assistant Professor SCHLAFLY.

28. STEEL CONSTRUCTION. Five credit hours. Architecture, fourth year, second term. *M., Tu., W., Th., F., at* 11. Prerequisite, Civil Engineering 19. Professor MORRIS.

29. CEMENT TESTING. Three credit hours. Architecture, fourth year, second term. *Tu., W.,* 1 *to* 4. Prerequisite, Civil Engineering 34. Professor ENO, Mr. WARD.

30. SURVEYING. Five credit hours. Civil Engineering, second year, first term. *M., Tu., W., Th., F., at* 8 *or* 11. Prerequisite, Mathematics 14 or 32. Professors SHERMAN, ENO, Assistant Professors SCHLAFLY, CHAMBERLIN, Mr. WARD.

31. FIELD PRACTICE IN SURVEYING. One credit hour. Civil Engineering, second year, first term. Concurrent, Civil Engineering 30.

32. RAILROAD SURVEYING. Five credit hours. Civil Engineering, second year, third term. *M., Tu., W., Th., F., at* 8 *or* 11. Prerequisite, Civil Engineering 30 and 31. Professors SHERMAN, ENO, Assistant Professors SCHLAFLY, CHAMBERLIN, Mr. WARD.

33. FIELD PRACTICE IN RAILROAD SURVEYING. One credit hour. Civil Engineering, second year, third term. Concurrent Civil Engineering 32.

34. MASONRY CONSTRUCTION. Three credit hours. Civil Engineering and Architecture, fourth year, first term. *M., W., F., at* 8 *or* 9. Prerequisite, Mechanics 2. Professor SHERMAN.

35. MASONRY STRUCTURES. Three credit hours. Civil Engineering, fourth year, second term. *M., Tu., Th., at* 10. Prerequisite, Civil Engineering 34. Professor SHERMAN.

36. REINFORCED CONCRETE. Two credit hours. Civil Engineering, fourth year, third term. Prerequisite, Mechanics 2 and Civil Engineering 35.

*37. CONTRACTS AND SPECIFICATIONS. Three credit hours. Civil Engineering, fourth year, third term. *M., Tu., Th., at* 10. Prerequisite, Civil Engineering 8, 10, and 34.

DAIRYING
(Townshend Hall)

PROFESSOR ERF, MR. NYSTROM, MR. CLEVENGER, MR. STEINER

12. PRINCIPLES OF DAIRYING. First term. Four credit hours. *Tu., Th., at* 1. Laboratory, *Tu., Th.,* 2 *to* 4. Professor ERF, Mr. NYSTROM.

14. BUTTERMAKING. Five credit hours. First term, and duplicated in the second and third terms. Time to be arranged. Mr. CLEVENGER.

16. CHEESE AND FANCY DAIRY PRODUCTS. Five credit hours. Second term. Time to be arranged. Mr. NYSTROM.

19. MILK INSPECTION. Two credit hours. Elective. Third year, first term. Professor ERF.

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*Not given in 1909-1910.

22. DAIRY MECHANICS. Three credit hours. First term. Mr. NYSTROM.

23. ADVANCED DAIRYING. Three credit hours. Second and third terms. Professor ERF.

24. DAIRY EQUIPMENT. Two credit hours. Second term. *Tu., Th., at* 1. Laboratory, *Tu., Th.,* 2 *to* 4. Professor ERF.

26. FARM DAIRYING. Four credit hours. Third term. *Tu., Th., at* 1. Laboratory, *Tu., Th.,* 2 *to* 4. Prerequisite, 12 and 24. Professor ERF.

27. CITY MILK SUPPLY. Two credit hours. First term and duplicated in the second and third terms. Time to be arranged. Mr. STEINER.

28. ADVANCED DAIRYING. Five to ten credit hours. Three terms. Professor ERF.

DOMESTIC SCIENCE

(Hayes Hall)

PROFESSOR WARDALL, ASSOCIATE PROFESSOR WHITE, ASSOCIATE PROFESSOR FLINT

I. DOMESTIC SCIENCE

1. THE SELECTION AND PREPARATION OF FOODS. Three credit hours. First term. *M., at* 8; *M., Tu.,* 1 *to* 3, *or Th., F.,* 1 *to* 3, *or Tu., Th.,* 8 *to* 10. Prerequisite, Chemistry 7 or 44. Professor WARDALL, Associate Professor WHITE.

2. Continuation of 1. Three credit hours. Second term. Time same as Course 1.

3. Continuation of 2. Three credit hours. Third term. Time same as Course 1.

4. DIETETICS. Second term. Four credit hours. *M., F., at* 9; *M., F.,* 10 *to* 12. Prerequisite, Domestic Science, 1, 2, 3; Physiology 1, and Agricultural Chemistry 14. Professor WARDALL.

10. THE HOUSE. Three credit hours. Third term. *M., W., F., at* 9. Associate Professor WHITE.

11. HOUSEHOLD MANAGEMENT. Three credit hours. Third term. *M., W., F., at* 11. Prerequisite, Courses 1, 2, 3, 10, and 4. Associate Professor WHITE.

12. TEACHERS' COURSE. Three credit hours. First term. *M., Th., F., at* 9. Professor WARDALL.

13. SEMINARY. Two to five credit hours. Three terms. Open

only to fourth year and graduate students. Time to be arranged. Professor WARDALL, Associate Professor WHITE.

II. DOMESTIC ART

1. TEXTILES. Two credit hours. First term. Recitation, *W.*, *at* 11. Laboratory sections, *Tu., W., or Th.*, 1 *to* 3. Prerequisite, or concurrent, Art 10, 11, 12. Laboratory fee, $1.00.

2. A continuation of Course 1. Two credit hours. Second term. Recitation, *W., at* 11. Laboratory sections, time same as Course 1.

3. A continuation of Course 2. Two credit hours. Third term. Recitation, *W., at* 11. Laboratory sections, time same as Course 1.

4. DRESS. Four credit hours. First term. Recitation, *W.* at 9. Laboratory, *Tu., Th.*, 10 *to* 12, *or M., F.*, 1 *to* 3. Prerequisite, Courses 1, 2, 3. Laboratory fee, $1.00. Art 13, 14, 15 must be taken with this work.

5. HOUSEHOLD ART. Four credit hours. Second term. Recitation, *Th.*, at 8. Laboratory, same as Course 4. Laboratory fee, $1.00. Prerequisite, or Concurrent Art 13, 14, 15.

8. A continuation of Course 5. Four credit hours. Third term. Recitation *Th., at* 8. Laboratory, same as Course 4. Laboratory fee, $1.00.

6. TEACHERS' COURSE. Three credit hours. Second term. *M., Th., F., at* 9. Prerequisite, Courses 1, 2, 3, 4, 5, 7. Laboratory fee, $1.00.

NOTE.—In all courses students provide their own materials.

DRAWING

(See Engineering Drawing and Art)

ECONOMICS AND SOCIOLOGY

(Office, Room 211, University Hall)

PROFESSOR HAGERTY, PROFESSOR HAMMOND, PROFESSOR BOWNOCKER, ASSISTANT PROFESSOR MCKENZIE, ASSISTANT PROFESSOR LOCKHART, MR. GEPHART, MR. DORNEY, MR. WALLIS, MR. REEDER

I. ECONOMICS

Students who plan to do considerable work in Economics should take Courses 30, 31, and 32, as introductory to all other courses, and should take at the same time Geology 17. Those who intend to take

but one year of work in Economics and Sociology should take Economics 33.

30. INDUSTRIAL AND SOCIAL HISTORY OF ENGLAND. Three credit hours. First term. *M., W., F., at* 8, 9, *or* 2. Open only to first and second-year students. Assistant Professor MCKENZIE and Mr. GEPHART.

31. INDUSTRIAL AND SOCIAL HISTORY OF THE UNITED STATES. Three credit hours. Second term. *M., W., F., at* 8, 9, *or* 2. Open only to first and second-year students. Assistant Professor MCKENZIE and Mr. GEPHART.

32. COMMERCIAL AND ECONOMIC GEOGRAPHY. Three credit hours. Third term. *M., W., F., at* 8, 9, *or* 2. Open only to first and second-year students. Assistant Professors MCKENZIE, and Mr. GEPHART.

33. PRINCIPLES OF ECONOMICS. Three credit hours. Three terms. *M., W., F., at* 8, 9, *or* 1. Not open to first-year students. Should precede all courses in Economics and Sociology except Economics 30, 31, and 32, and Sociology 1. Professor HAMMOND, Assistant Professor LOCKHART, Mr. GEPHART, and Mr. DORNEY.

34. MONEY AND BANKING. Three credit hours. First term. Prerequisite, Course 33. *M., W., F., at* 2. Assistant Professor LOCKHART.

*35. BANKING PRACTICE. Three credit hours. Second term. Prerequisite, Course 34. *M., W., F., at* 2. Mr. DORNEY.

*36. THE MONEY MARKET. Three credit hours. Third term. Prerequisite, Course 34. *M., W., F., at* 2. Assistant Professor LOCKHART.

37. INDUSTRIAL ORGANIZATION. Three credit hours. First term. Prerequisite, Course 33. *M., W., F., at* 9. Professor HAMMOND.

38. CORPORATION ORGANIZATION AND FINANCE. Three credit hours. Second term. Prerequisite, Course 33. *M., W., F., at* 9. Professor HAMMOND.

51. THE MONOPOLY PROBLEM. Three credit hours. Third term. Prerequisite, Course 38. *M., W., F., at* 9. Professor HAMMOND.

40. MERCANTILE INSTITUTIONS. Three credit hours. First and second terms. Prerequisite, Course 33. *M., W., F., at* 11. Professor HAGERTY.

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*Not given in 1909-1910.

41. COMMERCIAL CREDIT. Three credit hours. Third term. Prerequisite, Course 40. *M., W., F., at* 11. Professor HAGERTY.

42. PUBLIC FINANCE. Two credit hours. First and second terms. Prerequisite, Course 33. *Tu., Th., at* 2.

43. FINANCIAL HISTORY OF THE UNITED STATES. Two credit hours. Third term. Prerequisite, Course 33. *Tu., Th., at* 2.

*44. TRANSPORTATION. Three credit hours. Three terms. Prerequisite, Course 33. *M., W., F., at* 9. Professor HAMMOND.

45. SEMINARY IN ECONOMICS. Two credit hours. Three terms. *Tu.,* 3 *to* 5. Professor HAMMOND.

48. ACCOUNTING AND BUSINESS STATISTICS. Two credit hours. Three terms. Prerequisite, Course 33. *Tu., Th., at* 8. Mr. DORNEY.

*52. LABOR LEGISLATION. Three credit hours. First term. Prerequisite, Course 33. *M., W., F., at* 1. Professor HAMMOND.

*39. LABOR ORGANIZATIONS AND EMPLOYERS' ASSOCIATIONS. Three credit hours. Second term. Prerequisite, Course 33. *M., W., F., at* 1. Professor HAMMOND.

*53. REMUNERATION OF LABOR. Three credit hours. Third term. Prerequisite, Course 33. *M., W., F., at* 1. Professor HAMMOND.

54. INSURANCE. Two credit hours. Three terms. Prerequisite, Course 33. *Tu., Th., at* 10. Mr. GEPHART.

55. MUNICIPAL ECONOMICS. Two credit hours. First and second terms. Prerequisite, Course 33. *M., F., at* 10. Assistant Professor LOCKHART.

56. MUNICIPAL FINANCE. Two credit hours. Third term. Prerequisite, Course 55. *M., F., at* 10. Assistant Professor LOCKHART.

*57. AMERICAN INDUSTRIES. Three credit hours. Second and third terms.

58. ADVANCED ACCOUNTING AND AUDITING. Three credit hours. Three terms. Prerequisite, Course 48. *M., W., F., at* 8. Mr. DORNEY.

*59. ECONOMIC RESOURCES OF THE UNITED STATES. Two credit hours. Three terms. Given in 1908-1909, and thereafter in alternate years. Prerequisite, Geology 17, and Economics 33. *Tu., Th., at* 9. Professor BOWNOCKER.

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*Not given in 1909-1910.

60. ECONOMIC BIBLIOGRAPHY. One credit hour. Three terms. Prerequisite, Course 33. *W., at* 4. Mr. REEDER.

61. COMMERCE AND COMMERCIAL POLICY. Three credit hours. Three terms. Prerequisite, Course 33. *M., W., F., at* 1. Mr. GEPHART.

63. BUSINESS LAW. Two credit hours. Three terms. Prerequisite, Course 33. *Tu., Th., at* 9. Mr. DORNEY.

II. SOCIOLOGY

These courses are not open to first-year students. It is recommended that Course 1 be preceded by Economics 30, 31, 32, or 33, and Psychology 1, or Zoology 31.

1. PRINCIPLES OF SOCIOLOGY. Three credit hours. Three terms. *M., W., F., at* 8, 9, *or* 8. Professor HAGERTY, Assistant Professor MCKENZIE.

*2. HISTORY OF THE FAMILY. Three credit hours. Second term. Prerequisite, Course 1. *M., W., F., at* 8. Mr. WALLIS.

4. DEPENDENTS AND DEFECTIVES. Three credit hours. First term. Prerequisite, Course 1. *M., W., F., at* 9. Professor HAGERTY.

5. CRIMINOLOGY. Three credit hours. Second term. Prerequisite, Course 4. *M., W., F., at* 9. Professor HAGERTY.

6. ORGANIZED PHILANTHROPHY. Three credit hours. Third term. Prerequisite, Course 5. *M., W., F., at* 9. Professor HAGERTY.

*8. THE INDIAN. A study of primitive man. Three credit hours. First term. Prerequisite, Course 1. *M., W., F., at* 1. Assistant Professor MCKENZIE.

*9. THE NEGRO. A study of tropical man. Three credit hours. Second term. Prerequisite, Course 1. *M., W., F., at* 1. Assistant Professor MCKENZIE.

*10. THE IMMIGRANT. Three credit hours. Third term. Prerequisite, Course 1. *M., W., F., at* 1. Assistant Professor MCKENZIE.

7. SEMINARY IN SOCIOLOGY. Two credit hours. Three terms. *Tu.,* 3 *to* 5. Open to graduates and advanced undergraduates. Prerequisite, Course 1. Professor HAGERTY.

11. SOCIAL REFORM AND SOCIALISM. Three credit hours. Three terms. Prerequisite, Course 1, or Economics 33. *M., W., F., at* 1. Assistant Professor MCKENZIE.

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*Not given in 1909-1910.

*12. BIBLICAL SOCIOLOGY. Three credit hours. First term. *M., W., F., at* 8. Mr. WALLIS.

*13. ARYAN INSTITUTIONS. Three credit hours. Third term. *M., W., F., at* 8. Mr. WALLIS.

GRADUATE COURSES

*50. DISTRIBUTION OF WEALTH. Three hours. Three terms. *M., W., F., at* 11. Professor HAGERTY.

*14. ADVANCED SOCIOLOGY. Two hours. Three terms. *M., W., at* 2. Assistant Professor MCKENZIE.

62. THE STATE IN ITS RELATION TO INDUSTRY AND LABOR. Two hours. Three terms. *M.,* 3 *to* 5. Professor HAMMOND.

47. GRADUATE SEMINARY IN ECONOMICS AND SOCIOLOGY. Graduate students and the instructors in the department will meet regularly for the presentation of the results of investigation, the review of current economic and sociological literature, and the discussion of current problems. Two hours. Three terms. Time to be arranged.

EDUCATION

(See History and Philosophy of Education, School Administration, and Psychology)

ELECTRICAL ENGINEERING

(Office, Engineering Laboratory, Room 171)

PROFESSOR CALDWELL, ASSOCIATE PROFESSOR HUNT, ASSISTANT PROFESSOR UPSON

5. ELECTRICAL ENGINEERING. Four credit hours. Mechanical, Mine Engineering, Industrial Arts, and Manual Training, fourth year, first and second terms; Civil and Chemical Engineering, fourth year, first term. Lectures, first term: *M., F., at* 10 *or Tu., Th., at* 10. Second term, *Tu., Th., at* 10. Laboratory: First term; Chemical Engineering, *M.,* 1 *to* 5; Civil Engineering, *F.* 1 *to* 5; Industrial Arts, Manual Training, *M.,* 1 *to* 5; Mechanical Engineering, *W.,* 1 *to* 5; *S.,* 8 *to* 12; Mine Engineering, *W.,* 1 *to* 5. Second term: Mine Engineering, Industrial Arts, Manual Training, *M.,* 1 *to* 5; Mechanical Engineering, *F.,* 1 *to* 5; *S.,* 8 *to* 12. Prerequisite, Physics 2. Associate Professor HUNT, Assistant Professor UPSON.

11. ADVANCED DYNAMO LABORATORY. Three credit hours. Electrical Engineering, fourth year, first term. *Th., or F.,* 10 *to* 5. Sec-

*Not given in 1909-1910.

ond term. *Tu., or Th.,* 10 *to* 5. Third term. *M., or Tu.,* 10 *to* 5. Prerequisite, Electrical Engineering 15. Concurrent, 16 and 17. Professor CALDWELL, Assistant Professor UPSON.

15. ALTERNATING CURRENT CIRCUITS AND MACHINERY. Two credit hours. Electrical Engineering, third year, third term. *Tu., Th., at* 10. Concurrent, Electrical Engineering 30. Professor CALDWELL.

16. Continuation of 15. Three credit hours. Electrical Engineering, fourth year, first term. *M., Tu., W., at* 11. Concurrent, Electrical Engineering 11. Professor CALDWELL.

17. Continuation of 16. Two credit hours. Electrical Engineering, fourth year, second term. *M., W., at* 8. Concurrent, Electrical Engineering 11. Professor CALDWELL.

18. ELECTRICAL DESIGN. Three credit hours. Electrical Engineering, fourth year, second term. *M.,* 1 *to* 4, *S.,* 8 *to* 11. Prerequisite, Drawing 5. Concurrent, Industrial Arts 9. Associate Professor HUNT.

19. Continuation of 18. Four credit hours. Electrical Engineering, fourth year, third term. *Th., F.,* 1 *to* 5. Associate Professor HUNT.

20. INSPECTION TRIP TO THE EAST. Given only in the even years. Electrical Engineering, third or fourth year.

21. INSPECTION TRIP TO THE WEST. Given only in the odd years. Electrical Engineering, fourth or third year.

22. READING COURSE. Electrical Engineering, third or fourth year. This may be taken as a substitute for 20, on presentation of reasons satisfactory to the head of the department.

23. Similar to 22. A substitute for 21.

24. APPLICATIONS OF ELECTRICITY. Two credit hours. Electrical Engineering, fourth year, second term. *Tu., Th., at* 8. Prerequisite, Electrical Engineering 8. Professor CALDWELL, Assistant Professor UPSON.

25. ELECTRICAL TRANSMISSION AND DISTRIBUTION. Two credit hours. Electrical Engineering, fourth year, third term. *Tu., Th., at* 8. Prerequisite, Electrical Engineering 8. Professor CALDWELL.

26. ELECTRICAL RAILWAYS. Three credit hours. Electrical Engineering, fourth year, third term. *M., W., F., at* 8. Alternative with courses 27, 28, and 29. Prerequisites, Electrical Engineering 17 and 24. Professor CALDWELL.

27. TELEPHONY. Three credit hours. Electrical Engineering,

fourth year, third term. *M., W., F., at* 9. Alternative with courses 26, 28, and 29. Prerequisite, Electrical Engineering 17 and 24. Assistant Professor UPSON.

28. ELECTRIC ILLUMINATION. Three credit hours. Electrical Engineering, fourth year, third term. *Tu., Th., at* 9, *F., at* 10. Alternative with 26, 27, and 29. Prerequisite, Electrical Engineering 17 and 24. Professor CALDWELL.

29. WIRELESS TELEGRAPHY. Three credit hours. Electrical Engineering, fourth year, third term. *M., W., F., at* 8. Alternative with courses 26, 27, and 28. Prerequisite, Electrical Engineering 17 and 24. Assistant Professor UPSON.

30. DIRECT CURRENT DYNAMO MACHINERY. Four credit hours. Electrical Engineering, third year, second term. *M., F., at* 9, and *W. or F.,* 1 *to* 5. Third term. *M., F., at* 10, and *W.,* 1 *to* 5, *or S.,* 8 *to* 12. Prerequisite, Physics 4. Mechanics 1. Concurrent, Physics 6. Associate Professor HUNT.

31. ELECTRICAL ENGINEERING. Five credit hours. Civil Engineering, third year, first term. *M., W., F., at* 11 *and Tu., or Th.,* 1 *to* 5. Prerequisite, Physics 2. Associate Professor HUNT, Assistant Professor UPSON.

32. SPECIAL READING AND LABORATORY WORK. Credit hours to be arranged. Open only to fourth year and graduate students with the consent of the instructor in charge. Prerequisite, Electrical Engineering 30 and 15.

ENGINEERING DRAWING

(Office, Brown Hall, Room 42)

PROFESSOR FRENCH, ASSISTANT PROFESSOR LEWIS, ASSISTANT PROFESSOR ROGERS, ASSISTANT PROFESSOR MEIKLEJOHN, MR. TIDBALL, MR. BOTT, MR. NORRIS

1. ELEMENTARY MECHANICAL DRAWING. Two credit hours. Practice in the use of drawing instruments, elementary projections. All four year courses, first year, first term. *M., F.,* 9 *to* 11; *Tu., Th.,* 9 *to* 11; *M., Tu.,* 1 *to* 3; *Th., F.,* 1 *to* 3; *W.,* 1 *to* 3, *S.,* 8 *to* 10.

2. LETTERING. Two credit hours. All four-year courses, first year, second term. (Same hours as 1.) Prerequisite, Drawing 1.

2a. LETTERING. Three credit hours. Short courses (no prerequisite.) Elementary drawing and lettering. Short Clayworking and Industrial Arts, first year. Short Mining, second year, first term. *M., Tu.,* 1 *to* 4; *Th., F.,* 1 *to* 4.

3. PROJECTION DRAWING. Three credit hours. All four-year courses, third term. Lectures, *M., at* 8; *W., at* 8 *or* 9; *Th., at* 8; *F., at* 8 *or* 9. Practice, time same as course 1. Prerequisite, Drawing 2.

5. TECHNICAL DRAWING. Three credit hours. Electrical and Mechanical Engineering, Industrial Arts, and Manual Training, third year, first term. *M., Tu.,* 1 *to* 4, *or Th., F.,* 1 *to* 4. Prerequisite, Drawing 35. Professor FRENCH, Assistant Professor ROGERS.

10. MECHANICAL DRAWING. Three credit hours. First term. *W.,* 1 *to* 4; *S.,* 8 *to* 11. Professor FRENCH, Assistant Professor MEIKLEJOHN.

14. PEN DRAWING. Two credit hours. Architecture, second year, second and third terms. *M., Tu.,* 1 *to* 3. Prerequisite, Drawing 26. Mr. NORRIS.

15. HOUSE PLANNING. One and one-half credit hours. Second and third terms. *W.,* 1 *to* 4. Prerequisite, Course 20. Professor FRENCH.

18. WATER COLOR PAINTING. Two credit hours. Architecture, third year, second term. *Tu., Th.,* 9 *to* 11. Prerequisite, Drawing 26. Mr. NORRIS.

19. WATER COLOR PAINTING. Two credit hours. Architecture. third year, third term. *Tu., Th.,* 8 *to* 10. Prerequisite, Drawing 18. Mr. NORRIS.

20. MECHANICAL DRAWING. One credit hour. First term. *W.,* 1 *to* 4. Professor FRENCH.

21. TECHNICAL DRAWING. Two credit hours. Chemical Engineering, third year, first term. *W.,* 1 *to* 5. Assistant Professor ROGERS.

22. TECHNICAL DRAWING. Two credit hours. Chemical Engineering, third year. Ceramics, fourth year, second term. *S.,* 8 *to* 12. Prerequisite, Drawing 21 or 39. Professor FRENCH.

23. TECHNICAL DRAWING. Two credit hours. Chemical Engineering, third year. Ceramics, fourth year, third term. *S.,* 8 *to* 12. Prerequisite, Drawing 22. Professor FRENCH.

24. FREE HAND DRAWING. One credit hour. Short Industrial Arts, first year, first term. *S.,* 10 *to* 12. Mr. TIDBALL.

25. FREE HAND DRAWING. One credit hour. Short Industrial Arts, first year, second term. *S.*, 10 *to* 12. Prerequisite, Drawing 24. Mr. TIDBALL.

26. FREE HAND DRAWING. One credit hour. Short Industrial Arts, first year, third term. *S.*, 10 *to* 12. Prerequisite, Drawing 25. Mr. TIDBALL.

33. PROJECTION DRAWING. Three credit hours. Second year, first term. (For 1909 only.)

LECTURES	PRACTICE	COURSE IN
M., at 10	*Tu., Th.,* 9 *to* 11	Architecture
W., at 11	*M., F.,* 10 *to* 12	Ceramic Engineering
W., at 11	*Tu., Th.,* 9 *to* 11	Chemical Engineering
M., at 10	*Tu., Th.,* 9 *to* 11	Civil Engineering
Tu., at 8 *or* 11	*M., F.,* 10 *to* 12	Electrical Engineering
W., at 11	*M., F.,* 10 *to* 12	Industrial Arts
Tu. or W., at 11	*M., F.,* 10 *to* 12	Mechanical Engineering
W., at 11	*Tu., Th.,* 9 *to* 11	Mine Engineering

Prerequisite, Drawing 2 or 32. Professor FRENCH, Assistant Professor ROGERS, Assistant Professor MEIKLEJOHN, Mr. BOTT.

34. DESCRIPTIVE GEOMETRY. Three credit hours. Lectures and practice. Second year, second term. For 1909-10 only; thereafter to be given in first term.

LECTURES	PRACTICE	COURSE IN
M., W., at 11	*F.,* 10 *to* 12	Ceramic Engineering
M., W., at 11	*Th.,* 9 *to* 11	Chemical Engineering
Tu., Th., at 8 *Tu., Th., at* 11	*F.,* 10 *to* 12	Electrical Engineering
M., W., at 11	*F.,* 10 *to* 12	Industrial Arts
Tu., Th., at 8 *Tu., Th., at* 11	*F.,* 10 *to* 12	Mechanical Engineering
Tu., Th., at 11	*Tu.,* 9 *to* 11	Mine Engineering
Tu., Th., at 8	*Tu.,* 9 *to* 11	Short Industrial Arts

Prerequisite, Drawing 33 or 38. Professor FRENCH, Assistant Professor ROGERS, Assistant Professor MEIKLEJOHN, Mr. BOTT.

35. ADVANCED DESCRIPTIVE GEOMETRY. Three credit hours. Second year, third term. (1909-10 only; thereafter to be given in second term.)

LECTURES	PRACTICE	COURSE IN
M., at 10	*Tu., Th.,* 9 *to* 11	Civil Engineering
Tu., at 11 *W., at* 11	*M., F.,* 10 *to* 12	Electrical Engineering
W., at 11	*M., F.,* 10 *to* 12	Industrial Arts
W., at 11	*M., F.,* 10 *to* 12	Mechanical Engineering
Tu., at 11	*Tu., Th.,* 9 *to* 11	Mine Engineering
M., at 10	*Tu., Th.,* 9 *to* 11	Short Industrial Arts

Prerequisite, Drawing 34 or 36. Professor FRENCH, Assistant Professor ROGERS, Assistant Professor MEIKLEJOHN, Mr. BOTT.

36. DESCRIPTIVE GEOMETRY. Five credit hours. Architecture and Civil Engineering, second year, second term. *M., W., F., at* 8, *Tu., Th.,* 9 *to* 11, *or M., W., F., at* 11, *Tu., Th.,* 9 *to* 11. Prerequisite, Drawing 33 or 38. Professor FRENCH, Assistant Professor ROGERS, Assistant Professor MEIKLEJOHN, Mr. BOTT.

38. PROJECTION DRAWING. Three credit hours. Short Clay-working and Industrial Arts, first year. Short Mining, second year, second term. *M., Tu.,* 1 *to* 4 *or Th., F.,* 1 *to* 4. Prerequisite, Drawing 2. Assistant Professor MEIKLEJOHN.

39. DRAFTING AND BLUE-PRINTING. Three credit hours. Short Clay-working and Industrial Arts, first year. Short Mining and Ceramics, second year, third term. *M., Tu.,* 1 *to* 4 *or Th., F.,* 1 *to* 4. Prerequisite, Drawing 33 or 38. Assistant Professor ROGERS, Assistant Professor MEIKLEJOHN.

40. CLAY MODELING. Two credit hours. Architecture, third year, second term. *Th., F.,* 1 *to* 3. Prerequisite, Drawing 26. Assistant Professor LEWIS.

41. CLAY MODELING. Two credit hours. Architecture, third year, third term. *Th., F.,* 1 *to* 3. Prerequisite, Drawing 40. Assistant Professor LEWIS.

42. CHARCOAL DRAWING FROM ARCHITECTURAL ORNAMENT. Two credit hours. Architecture, second year, first term. *M., F.,* 1 *to* 3. Prerequisite, Drawing 26. Mr. TIDBALL.

43. CHARCOAL DRAWING FROM THE ANTIQUE. Two credit hours. Architecture, fourth year, first term. *M., F.,* 10 *to* 12. Prerequisite, Drawing 19. Mr. TIDBALL.

48. THE TEACHING OF MECHANICAL DRAWING. Two credit hours. Three terms. *Th.*, 1 *to* 3. Professor FRENCH.

49. LETTERING IN DESIGN. Two credit hours. Second term. *Th.*, 2 *to* 4. Professor FRENCH.

ENGLISH

(Office, Room 116, University Hall)

PROFESSORS DENNEY, TAYLOR, MCKNIGHT, ASSOCIATE PROFESSOR GRAVES, ASSISTANT PROFESSORS DUNCAN, BLANCHARD, LEIGHTON, COOPER, BURNHAM, MR. BECK

1. PARAGRAPH WRITING AND ANALYSIS OF PROSE. Two credit hours. First term. *Tu., Th., or W., F., at* 8; *Tu., Th., at* 9, 10, 11, 1, *or* 3; *M., F., at* 10, 11, *or* 2; *W., F., at* 3. (Course 1 will be repeated in the second term and the third term for the benefit of those who fail, the class meeting Saturdays at 9 a. m., Room 119.) All instructors.

2. EXPOSITORY WRITING. Two credit hours. Second term. Prerequisite, Course 1. Same hours as for Course 1. (Course 2 is also offered in the summer term.) All instructors.

3. BRIEF MAKING AND WRITTEN ARGUMENTATION. Two credit hours. Third term. Prerequisite, Course 1. Same hours as for Course 1. (Course 3 is also offered in the summer term.) All instructors.

3a. PRINCIPLES OF PUBLIC SPEAKING. Two credit hours. First term. *W., F., at* 1 *or* 3. Prerequisite, Courses 1, 2, 3. Assistant Professor BLANCHARD.

3b. DEBATING. Two credit hours. Second and third terms. *W., F., at* 1 *or* 3. Prerequisite, Course 3a. Assistant Professor BLANCHARD.

4. ADVANCED ARGUMENTATIVE WRITING. Two credit hours. First, second, and third terms. *Tu., Th., at* 11. Prerequisite, Course 3. Assistant Professor DUNCAN.

4a. ADVANCED DEBATING. Two credit hours. First and second terms. *W., F., at* 2. Prerequisite, Course 3b. Assistant Professor BLANCHARD.

4b. EXTEMPORE SPEAKING. Two credit hours. Third term. *W., F., at* 2. Prerequisite, Course 3b. Assistant Professor BLANCHARD.

5. ADVANCED COMPOSITION: EXPOSITION AND CRITICISM. Two

credit hours. First term. *Tu., Th., at* 11. Prerequisite, Course 1. Associate Professor GRAVES.

6. ADVANCED COMPOSITION: DESCRIPTION AND NARRATION. Two credit hours. Second and third terms. *Tu., Th., at* 11. Prerequisite, Course 1. Associate Professor GRAVES.

43. VERSIFICATION. Three credit hours. First term. *M., W., F., at* 9. Prerequisite, Course 4 (or 5 and 6), and 8. Associate Professor GRAVES.

44. SHORT STORY WRITING. Three credit hours. Second and third terms. *M., W., F., at* 9. Prerequisite, Course 4 (or 5 and 6), and 8. Associate Professor GRAVES.

8. GENERAL SURVEY OF ENGLISH LITERATURE. Three credit hours. Three terms. *M., W., F., at* 8, 9, 11, or 3. No prerequisite course. Professor MCKNIGHT, Associate Professor GRAVES, Assistant Professors DUNCAN, LEIGHTON, BURNHAM.

45. AMERICAN LITERATURE. Two credit hour. Three terms. *Tu., Th., at* 8. No prerequisite course. Professor TAYLOR.

10. THE ENGLISH LYRIC (1500 to 1700). Two credit hours. First term. *Tu., Th., at* 9. Prerequisite, Course 8. Assistant Professor COOPER.

11. POETRY FROM 1700 TO 1770. (Exclusive of the drama.) Two credit hours. Second term. *Tu., Th., at* 9. Prerequisite, Course 8. Latin 22 is recommended to students taking this course. Assistant Professor COOPER.

12. ESSAYS AND LETTERS (Bacon to Burke). Two credit hours. Third term. *Tu., Th., at* 9. Prerequisite, Course 8. Assistant Professor COOPER.

13. BURNS AND SCOTTISH POETRY. Two credit hours. First term. *Tu., Th., at* 2. Prerequisite, Course 8. Assistant Professor DUNCAN.

17. BYRON. Two credit hours. Second term. *Tu., Th., at* 2. Prerequisite, Course 8. Assistant Professor DUNCAN.

21. SHELLEY AND KEATS. Two credit hours. Third term. *Tu., Th., at* 2. Prerequisite, Course 8. Latin 22 is recommended to students taking this course. Assistant Professor DUNCAN.

14. BURKE TO DEQUINCEY. Two credit hours. First term. *Tu., Th., at* 10. Prerequisite, Course 8. Professor DENNEY.

15. CARLYLE AND RUSKIN. Two credit hours. Second term. *Tu., Th., at* 10. Prerequisite, Course 8. Professor DENNEY.

16. ARNOLD, NEWMAN, AND PATER. Two credit hours. Third term. *Tu., Th., at* 10. Prerequisite, Course 8. Professor DENNEY.

18. WORDSWORTH. Three credit hours. First term. *M., W., F., at* 8. Prerequisite, Course 8. Professor TAYLOR.

19. TENNYSON. Three credit hours. Second term. *M., W., F., at* 8. Prerequisite, Course 8. Professor TAYLOR.

20. BROWNING. Three credit hours. Third term. *M., W., F., at* 8. Prerequisite, Course 8. Professor TAYLOR.

22. THE ENGLISH BIBLE: Epic Forms. Two credit hours. First term. *Tu., Th., at* 8. No prerequisite course. Assistant Professor DUNCAN.

23. THE ENGLISH BIBLE: Lyric Forms. Two credit hours. Second term. *Tu., Th., at* 8. No prerequisite course. Assistant Professor DUNCAN.

24. THE ENGLISH BIBLE: Dramatic Forms. Two credit hours. Third term. *Tu., Th., at* 8. No prerequisite course. Assistant Professor DUNCAN.

26. HISTORY OF THE ENGLISH LANGUAGE. Two credit hours. First term. *Tu., Th., at* 1. No prerequisite course. Professor McKNIGHT.

27. ENGLISH WORDS. Two credit hours. Second and third terms. *Tu., Th., at* 1. No prerequisite course. Professor McKNIGHT.

28. OLD AND MIDDLE ENGLISH. Three credit hours. Three terms. *M., W., F., at* 1. No prerequisite course. Professor McKNIGHT.

31. CHAUCER. Three credit hours. First term. *M., W., F., at* 2. Open only to juniors, seniors, and graduates. Professor McKNIGHT.

33. SPENSER. Three credit hours. Second term. *M., W., F., at* 2. Open only to juniors, seniors, and graduates. Professor McKNIGHT.

37. MILTON. Epic and Prose. Three credit hours. Third term. *M., W., F., at* 2. Latin 22 is recommended to students taking this course. Open only to juniors, seniors, and graduates. Professor McKNIGHT.

35. SHAKESPEARE. Three credit hours. Three terms. *M., W., F., at* 11. Open only to juniors, seniors, and graduates. Professor DENNEY.

36. MODERN ENGLISH DRAMA. Two credit hours. Three terms. *Tu., Th., at* 11. Open only to juniors, seniors, and graduates. Proferror DENNEY.

38. THE NOVEL. Eighteenth Century. Four credit hours. First term. *M., Tu., Th., F., at* 9. Open only to juniors, seniors, and graduates. Professor TAYLOR.

39. THE NOVEL. First Quarter of Nineteenth Century. Four credit hours. Second term. *M., Tu., Th., F., at* 9. Prerequisite, Course 38. Professor TAYLOR.

40. THE NOVEL. Second Quarter of Nineteenth Century. Four credit hours. Third term. *M., Tu., Th., F., at* 9. Prerequisite, Courses 38 and 39. Professor TAYLOR.

48. THE TEACHING OF ENGLISH. Two credit hours. Three terms. *M., F., at* 10. Open only to seniors and graduates. Professor DENNEY.

49. SEMINARY. Two credit hours. Three terms. Topic for 1909-1910: English Drama Before Shakespeare. *Tu., at* 4. Open only to seniors and graduates. Must be elected for the year. Professor MCKNIGHT.

GRADUATE COURSES

61. THEORIES OF RHETORIC. Topic for 1909-1910: The Lyric. *W., at* 4. Associate Professor GRAVES.

62. OLD AND MIDDLE ENGLISH PHILOLOGY. Topic for 1909-1910: Metrical Romances. *Th., at* 4. Professor MCKNIGHT.

63. LITERARY PROBLEMS. Topic for 1909-1910: The Romantic Movement. *M., at* 4. Professor DENNEY.

64. CRITICISM. Topic for 1909-1910: Literature from 1875 to the present. *F., at* 4. Professor TAYLOR.

ENTOMOLOGY

(See Zoology and Entomology)

EUROPEAN HISTORY

(Office, Room 204, University Hall)

PROFESSOR SIEBERT, ASSISTANT PROFESSOR MC NEAL

1. MEDIAEVAL HISTORY TO 1300 A. D. Three credit hours. First term. *M., W., F., at* 9, 11, 1, *or* 2. Professor SIEBERT, Assistant Professor MCNEAL.

2. EUROPEAN HISTORY FROM 1300 TO 1648 A. D. Three credit hours. Second term. *M., W., F., at* 9, 11, 1, or 2. Professor SIEBERT, Assistant Professor MCNEAL.

3. EUROPEAN HISTORY FROM 1648 TO 1900 A. D. Three credit hours. Third term. *M., W., F., at* 9, 11, 1, or 2. Professor SIEBERT, Assistant Professor MCNEAL.

4. CONSTITUTIONAL HISTORY OF ENGLAND. Three credit hours. Three terms. *Tu., Th., F., at* 10. Prerequisite, Course 14, or Courses 1, 2, 3. Professor SIEBERT.

5. HISTORY OF GREECE. Two credit hours. Three terms. *Tu., Th., at* 9. Assistant Professor MCNEAL.

*6. HISTORY OF ROME. Two credit hours. Three terms. *Tu., Th., at* 9. Assistant Professor MCNEAL.

Courses 5 and 6 will be given in alternate years.

7. THE PERIOD OF THE REFORMATION. Three credit hours. First term. *M., W., F., at* 2. Prerequisite, courses 1, 2, and 3, or course 14. Professor SIEBERT.

8. THE FRENCH REVOLUTIONARY AND NAPOLEONIC PERIODS, 1789-1815. Three credit hours. Second term. *M., W., F., at* 2. Prerequisite, courses, 1, 2, and 3, or course 14. Professor SIEBERT.

9. EUROPE IN THE NINETEENTH CENTURY. Three credit hours. Third term. *M., W., F., at* 2. Prerequisite, courses 1, 2, 3, or course 14. Professor SIEBERT.

11. EUROPE AND TURKEY: THE EASTERN QUESTION. Two credit hours. First term. *Tu., Th., at* 11. Prerequisite, Courses 1, 2, and 3, or equivalent. Professor SIEBERT.

10. EUROPE AND AFRICA, INDIA AND AUSTRALIA. Two credit hours. Second and third terms. *Tu., Th., at* 11. Prerequisite, courses 1, 2, and 3, or course 14. Professor SIEBERT.

*13. TEACHERS' COURSE IN EUROPEAN HISTORY. One or two credit hours. Three terms. Time to be arranged. Professor SIEBERT and Assistant Professor MCNEAL.

14. HISTORY OF ENGLAND. Three credit hours. Three terms. *M., W., F., at* 8. Introductory course. Assistant Professor MCNEAL.

*15. NORTHEASTERN EUROPE. Two credit hours. First and second terms. *Tu., Th., at* 11. Prerequisite, courses 1, 2, and 3, or course 14.

*16. EUROPE AND ASIA: THE FAR EASTERN QUESTION. Two credit hours. Third term. *Tu., Th., at* 11. Prerequisite, courses 1, 2, and 3, or course 14.

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*Not given in 1909-1910.

17. THE DARK AGES, 400 A. D. TO 814 A. D. Three credit hours. First term. *M., W., F., at* 3. Prerequisite, courses 1, 2, 3. Assistant Professor MCNEAL.

18. THE FEUDAL AGE, 814 TO 1250 A. D. Three credit hours. Second term. *M., W., F., at* 3. Prerequisite, courses 1, 2, 3. Assistant Professor MCNEAL.

19. THE AGE OF THE RENAISSANCE, 1250 TO 1500 A. D. Three credit hours. Third term. *M., W., F., at* 3. Prerequisite, courses 1, 2, 3. Assistant Professor MCNEAL.

*20. HISTORY OF GERMANY. Two credit hours. Three terms. Time to be arranged.

*21. SEMINARY IN MODERN EUROPEAN HISTORY. Topic for 1909-1910: England and Canada, 1783-1830. Two credit hours. Three terms. Open only by permission of instructor. Time to be arranged. Professor SIEBERT.

22. SEMINARY IN MEDIAEVAL HISTORY. Reading of the sources of some period in the Middle Age. Two credit hours. Three terms. Open only by permission of instructor. Time to be arranged. Assistant Professor MCNEAL.

FORESTRY

(Horticultural Hall)

PROFESSOR LAZENBY, MR. THOMPSON

1. INTRODUCTION TO FORESTRY. One credit hour. First term. Time to be arranged.

2. INTRODUCTION TO FORESTRY. Two credit hours. Third term. Time to be arranged.

3. ARBORICULTURE. Four credit hours. Third term. Time to be arranged.

4. SILVICULTURE. Three credit hours. First term. Time to be arranged.

5. SILVICULTURE. Three credit hours. Second term. Time to be arranged.

6. SILVICULTURE. Three credit hours. Third term. Time to be arranged.

7. FOREST MENSURATION. Four credit hours. First term. *M., Tu., Th., F., at* 10.

*Not given in 1908-1909.

8. WOOD TECHNOLOGY AND TIMBER PHYSICS. Four credit hours. Second term. *M., Tu., Th., F., at* 10.

9. FOREST UTILIZATION. Four credit hours. Third term. *M., Tu., Th., F., at* 10.

10. FOREST MANAGEMENT. Four credit hours. First term. Time to be arranged.

11. FOREST ECONOMICS. Four credit hours. Second term. Time to be arranged.

12. FOREST POLICIES. Four credit hours. Third term. Time to be arranged.

FRENCH

(See Romance Languages and Literatures)

GEOLOGY

(Office, Room 1, Orton Hall)

PROFESSOR PROSSER, PROFESSOR BOWNOCKER, ASSISTANT PROFESSOR HUBBARD, MR. MORSE

1. ELEMENTARY PHYSIOGRAPHY. Five credit hours. Third term. *M., Tu., W., Th., at* 11; laboratory, *Tu.,* 1 *to* 3. Assistant Professor HUBBARD.

2. GENERAL GEOLOGY. Five credit hours. First term. Lectures and recitations, *M., Tu., W., at* 11; laboratory, *Th.,* 8 *or* 9; field work, first half of term, *F.* afternoon or *S.* forenoon, when the *F.* lecture will be omitted. Professor PROSSER, Mr. MORSE.

5. APPLIED GEOLOGY. Four credit hours. Second term. Lectures, *M., Tu., W., Th., at* 8; laboratory, *F., at* 8. Professor BOWNOCKER.

7. PETROGRAPHY. Two credit hours. Ceramic and Mine Engineering, fourth year, second term. *Tu.,* 1 *to* 3; *Th., at* 11. Concurrent, Geology 6. Professor BOWNOCKER.

17. PHYSIOGRAPHY. Three credit hours. Three terms. Open to freshmen and sophomores only. *M., W., F., at* 8 *or* 1; *M., Tu., Th., at* 10. Field trips, Saturday mornings in first and third terms. In the second term, the Monday hour in each sections is replaced by laboratory work, time to be arranged. Professor BOWNOCKER, Assistant Professor HUBBARD, Mr. MORSE.

11. INORGANIC GEOLOGY. Three credit hours. First term. *M., W., F., at* 9. Prerequisite, Chemistry, either in a high school or college (Chemistry 7.) Professor BOWNOCKER.

12. HISTORICAL GEOLOGY. Three credit hours. Second term. Lectures, *M., W., F., at* 9. Prerequisite, course 11. Professor PROSSER.

13. FIELD GEOLOGY. Three to five credit hours. Third term. Lectures, *M., at* 9. Laboratory, *W., at* 9. Field trips, *S.* Prerequisite, courses 11 and 12. Professor PROSSER and Mr. MORSE.

[Courses 11, 12, and 13 are considered as forming a general course in geology which is required before advanced work in physiography, historical or inorganic geology. Occasionally course 13 may be counted as graduate work for students entering from other colleges or universities.]

FOR GRADUATES AND UNDERGRADUATES

14. PALEONTOLOGY. Two to five credit hours. Three terms. Laboratory open afternoons, 1 to 4, and on certain days in the morning. Prerequisite, courses 11 and 12. Professor PROSSER and Mr. MORSE.

15. AREAL GEOLOGY. Two to five credit hours. First and third terms. Field work, *S.* Laboratory open afternoons, 1 to 4. Prerequisite, courses 11, 12, 13, and 14. Professor PROSSER and Assistant Professor HUBBARD.

6. ECONOMIC GEOLOGY. Three credit hours. Second term. *M., W., F., at* 11. Prerequisite, courses 11, 12, and 13. Professor BOWNOCKER.

18. GLACIAL GEOLOGY. Three credit hours. Third term. Time to be arranged. Prerequisite, courses 11 or 17. Professor BOWNOCKER.

19. PETROGRAPHY. Two to five credit hours. Three terms. Laboratory open afternoons, 1 to 4. Prerequisite, Chemistry 7, Metallurgy 2, and Geology 11. Professor BOWNOCKER.

21. ADVANCED PHYSIOGRAPHY. Three to five credit hours. Three terms. Time to be arranged. Prerequisite, course 17, and courses 11, 12 and 13, or 11, 12 and 13 concurrently. Assistant Professor HUBBARD.

22. THE TEACHING OF PHYSIOGRAPHY. Two credit hours. Three terms. Time to be arranged. Prerequisites, Geology 17 or an equivalent. Assistant Professor HUBBARD.

23. MINOR INVESTIGATIONS AND CURRENT LITERATURE. Two to five credit hours. One or more terms. Time to be arranged. A study of special topics and current literature in geology. Assigned readings, conferences and reports. (a) HISTORICAL GEOLOGY. Pre-

requisite, courses 11, 12 and 13 required. Course 17 is recommended. Professor PROSSER. (b) INORGANIC GEOLOGY. Prerequisite, course 6. Professor BOWNOCKER. (c) PHYSIOGRAPHY. Prerequisite, courses 17, 11, 12 and 13. Assistant Professor HUBBARD.

24. GENERAL GEOLOGY. Five credit hours. Civil Engineering, fourth year, third term. Lectures and recitations, *M., Tu., W., at* 11; laboratory, *Th.*; field work, *F., or S.* Professor PROSSER, Mr. MORSE.

FOR GRADUATES

16. ADVANCED HISTORICAL GEOLOGY. Three to five credit hours. Three terms. Time to be arranged. Laboratory open afternoons, 1 to 4. Prerequisite, courses 11, 12, 13, and 14. Professor PROSSER.

20. RESEARCH WORK. Three to five credit hours. Three terms. Prerequisite, preceding courses in inorganic or historical geology. Field, laboratory, and library study is offered along three lines. Outline of work and time will be arranged with individual students. (a) STRATIGRAPHY AND PALEONTOLOGY. The investigation of some field problem in stratigraphy with laboratory and library study or of some special subject in paleontology. Professor PROSSER. (b) ECONOMIC GEOLOGY. The investigation of some field problem in petroleum, natural gas, coal, or salt. Professor BOWNOCKER. (c) PHYSIOGRAPHY. Field problems, experimental studies in the laboratory or investigations in the literature. Assistant Professor HUBBARD.

GERMANIC LANGUAGES AND LITERATURES

(Office, Room 317, University Hall)

PROFESSOR RHOADES, ASSOCIATE PROFESSOR EISENLOHR, ASSISTANT PROFESSORS THOMAS AND BUSSE, MR. BUSEY, MISS BARROWS

1. ELEMENTARY GERMAN. Four credit hours. Three terms. *M., Tu., Th., F., at* 9, 10, 11, *or* 2; *Tu., W., Th., F., at* 3.

2. SCIENTIFIC READING. Four credit hours. Third term. *M., Tu., Th., F., at* 9, 10, *or* 2. Prerequisite, course 4 for the first and second terms.

4. INTERMEDIATE GERMAN. Four credit hours. Three terms. *Tu., W., Th., F., at* 8; *M., Tu., Th., F., at* 9, 10, 11, *or* 2. The 9 o'clock period will be dropped in the third term.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

*9. CLASSICAL DRAMA. Three credit hours. Three terms. *M., W., F., at* 2. Prerequisite, Course 4, or equivalent. Not open to freshmen.

*10. MODERN PROSE AND DRAMA. Three credit hours. Three terms. *M., Tu., F., at* 10. Prerequisite, Course 4, or equivalent. Open to freshmen offering four entrance units in German. Assistant Professor THOMAS.

10a. PROSE COMPOSITION. One credit hour. Three terms. Freshmen will elect this in connection with Course 10 or 19. *Th., at* 10.

11. FAUST. Three credit hours. First and second terms. *M., W., F., at* 11. Must be elected for both terms. Professor RHOADES.

12. PROSE COMPOSITION AND CONVERSATION. Two credit hours. Three terms. *Tu., Th., at* 2 *or* 3. Prerequisite, Course 4. Open only by permission. Associate Professor EISENLOHR.

13. ADVANCED PROSE COMPOSITION. Two credit hours. Three terms. *W., F., at* 3. Prerequisite, Course 12. Associate Professor EISENLOHR.

*14. GOTHIC. One credit hour. Three terms. Time to be arranged. Assistant Professor THOMAS.

*15. OLD HIGH GERMAN. Two credit hours. First and second terms. Time to be arranged. This, with Course 17, forms a natural sequence to 14. Assistant Professor THOMAS.

16. MIDDLE HIGH GERMAN. Two credit hours. First and second terms. Assistant Professor BUSSE.

*17. OLD SAXON. Two credit hours. Third term. Time to be arranged. Assistant Professor THOMAS.

19. RECENT AND CONTEMPORARY WRITERS. Three credit hours. Three terms. *M., Tu., F., at* 10. Prerequisite, Course 4, or equivalent. Professor RHOADES.

26. SEMINARY. Studies in Modern Literature. Two credit hours. Three terms. *Tu., at* 4. The work is continuous throughout the year and must be so elected in order to count for an advanced degree. Professor RHOADES.

28. GERMAN LYRICS AND BALLADS. Two credit hours. Second

*Given in alternate years; Courses 15 and 17 not offered in 1909-1910.

and third terms. *W., F., at* 2. Prerequisite, Course 4. Associate Professor EISENLOHR.

30. HISTORY OF GERMAN LITERATURE SINCE THE REFORMATION. Three credit hours. Third term. *M., W., F., at* 11. Professor RHOADES.

31. THE TEACHING OF GERMAN. Two credit hours. First term. Prerequisite, twenty credit hours in advance of Course 4, including, unless concurrent, Courses 13, 16, and 20 (General Phonetics); also Course 20 in European History, including Course 12. Time to be arranged.

32. THE TEACHING OF GERMAN. Two credit hours. Second term. Prerequisite, Course 31. Time to be arranged.

33. THE TEACHING OF GERMAN. Two credit hours. Third term. Prerequisite, Course 32. Time to be arranged.

34. GENERAL PHONETICS. Two credit hours. Third term. No prerequisite in German, and open to students of language from all departments. Miss BARROWS.

35. GOETHE'S LIFE AND WORKS. Two credit hours. Three terms. Prerequisite, course 4. *W., F., at* 9. Assistant Professor THOMAS.

36. SCHILLER'S LIFE AND WORKS. Two credit hours. Three terms. Prerequisite, course 4. *Tu., Th.,* 11. Miss BARROWS.

*37. LESSING'S LIFE AND WORKS. Two credit hours. Three terms. Prerequisite, course 4. *Tu., Th., at* 3. Associate Professor EISENLOHR.

*38. DRAMAS OF HEINRICH VON KLEIST, GRILLPARZER AND HEBBEL. Two credit hours. Three terms. Prerequisite, course 4. *M., W., at* 2. Assistant Professor BUSSE.

39. VOLKSLIED. Two credit hours. First term. *W., F., at* 2. Prerequisite, course 4; course 28 is its natural sequence. Associate Professor EISENLOHR.

FOR GRADUATES ONLY

18. ROMANTIC WRITERS. Three credit hours. Three terms. Assistant Professor THOMAS.

40. GRADUATE SEMINARY. Two credit hours. Three terms. Professor RHOADES.

In 1909-1910 the subject will be Goethe's Faust.

Attention is directed to course 22 in Latin and to course 20 in European History. Students doing special work in German are particularly recommended to take the latter.

*Not offered in 1909-1910.

GREEK LANGUAGE AND LITERATURE

(Office, Room 307, University Hall)

PROFESSOR SMITH, PROFESSOR HODGMAN, PROFESSOR ELDEN

1. ELEMENTARY GREEK. Four credit hours. Three terms. *M., Tu., Th., F., at* 11. Professor ELDEN.

7. XENOPHON: The Memorabilia of Socrates; Exercises in Greek Prose. Four credit hours. First term. *M., Tu., Th., F., at* 11. Prerequisite, course 1. Professor SMITH.

8. HERODOTUS. Selections; with Studies in Greek History. Four credit hours. Second term. *M., Tu., Th., F., at* 11. Prerequisite, Course 7. Professor SMITH.

9. HOMER'S ODYSSEY. Selections from Books I-IX. Four credit hours. Third term. *M., Tu., Th., F., at* 11. Prerequisite, Courses 7 and 8. Professor SMITH.

10. LYSIAS: Eight Orations; with Studies in Attic Procedure. Three credit hours. First term. *Tu., Th., F., at* 10. Prerequisite, Courses 7 to 9. Professor SMITH.

11. PLATO: Apology, Crito, and Phædo. Three credit hours. Second term. *Tu., Th., F., at* 10. Prerequisite, Courses 7 to 10. Professor SMITH.

12. HOMER'S ILIAD. Three credit hours. Third term. *Tu., Th., F., at* 10. Prerequisite, Courses 7 to 11. Professor SMITH.

13. THUCYDIDES: Book I or Book VII. Two credit hours. First term. Time to be arranged. Prerequisite, Courses 7 to 12. Professor HODGMAN.

14. DEMOSTHENES: Olynthiacs and Philippics. Two credit hours. Second term. Time to be arranged. Prerequisite, Courses 7 to 12. Professor HODGMAN.

15. GREEK LYRIC POETS, OR THEOCRITUS. Two credit hours. Third term. Time to be arranged. Prerequisite, Courses 7 to 12. Professor HODGMAN.

16. EURIPIDES: Alcestis, with lectures on the Attic drama. Two credit hours. First term. Time to be arranged. Prerequisite, Courses 7 to 12. Professor HODGMAN.

17. SOPHOCLES: Oedipus Tyrannus. Two credit hours. Second term. Time to be arranged. Prerequisite, Courses 7 to 12. Professor HODGMAN.

18. AESCHYLUS: Agamemnon. Two credit hours. Third term. Time to be arranged. Prerequisite, Courses 7 to 12. Professor HODGMAN.

19. EPIC POETRY. Two credit hours. First term. *W., F., at* 2. Prerequisite, Courses 7 to 12. Professor SMITH.

20. ARISTOPHANES: The Birds. Two credit hours. Second term. *W., F., at* 2. Prerequisite, Courses 7 to 12. Professor SMITH.

21. POST-CLASSICAL GREEK. Two credit hours. Third term. *W., F., at* 2. Prerequisite, Courses 7 to 12. Professor SMITH.

22. ANCIENT ART. Lectures on Architecture. Two credit hours. First term. Time to be arranged. No prerequisite course. Professor SMITH.

23. ANCIENT ART. Lectures on Sculpture. Two credit hours. Second term. Time to be arranged. No prerequisite coure. Professor SMITH.

24. ANCIENT ART. Lectures on Sculpture. Two credit hours. Third term. Time to be arranged. No prerequisite course. Professor SMITH.

Courses 22, 23, and 24, are biennial, alternating with Courses 32, 33, and 34. They will not be offered again until 1911-1912.

25. GREEK PHILOSOPHY. Two credit hours. First term. *Tu., Th., at* 2. Prerequisite, Courses 7 to 12. Professor SMITH.

26. PLATO. Gorgias or Protagoras. Two credit hours. Second term. *Tu., Th., at* 2. Prerequisite, Courses 7 to 12. Professor SMITH.

27. STUDIES IN NEW TESTAMENT GREEK. Two credit hours. Third term. *Tu., Th., at* 2. Prerequisite, Courses 7 to 12. Professor SMITH.

28. HISTORICAL GRAMMAR. One credit hour. Three terms. Prerequisite, Courses 7 to 12. Professor HODGMAN.

*32. MEDIAEVAL ART. Lectures on Architecture. Two credit hours. First term. No prerequisite course. Professor SMITH.

*33. MEDIAEVAL ART. Lectures on Sculpture. Two credit hours. Second term. No prerequisite course. Professor SMITH.

*34. MEDIAEVAL ART. Lectures on Painting. Two credit hours. Third term. No prerequisite course. Professor SMITH.

These courses, 32, 33, and 34, are biennial, alternating with Courses 22, 23, and 24.

*Not given in 1909-1910.

35. PRIVATE LIFE OF THE GREEKS. Lectures. Two credit hours. First term. Time to be arranged. No prerequisite course. Professor SMITH.

36. HISTORY OF GREEK LITERATURE. (Epic, Lyric, and Dramatic Poetry.) Two credit hours. Second term. Time to be arranged. Professor SMITH.

37. HISTORY OF GREEK LITERATURE. (Historians, Philosophers, and Orators.) Two credit hours. Third term. Time to be arranged. Professor SMITH.

Courses 35, 36, and 37 are open to students without a knowledge of Greek.

HISTORY AND PHILOSOPHY OF EDUCATION

(Office, Second Floor, Old Mechanical Building)

PROFESSOR GRAVES

1. HISTORY OF EDUCATION. Three credit hours. Three terms. *M., W., F., at* 9. Graves's Educational Progress before the Middle Ages, Monroe's A Brief Course in the History of Education.

2. PHILOSOPHY OF EDUCATION. Two credit hours. Three terms. *M., Th., at* 3. Prerequisite, Course 1, Psychology 1, and Philosophy 152. Text: Horne's Philosophy of Education.

3. EDUCATIOAL CLASSICS. Three credit hours. Three terms. *M., Th., F., at* 11. Prerequisite, Course 1.

Readings in Plato, Aristotle, Montaigne, Locke, Rousseau, Mill, and Spencer.

4. HISTORY OF EUROPEAN SCHOOL SYSTEMS. Two credit hours. Three terms. *Tu., Th., at* 9. Prerequisite, 2 and 3.

Historical study of the school systems of Germany, France, and England. Assigned readings and reports.

5. HISTORY OF EDUCATION IN THE UNITED STATES. Two credit hours. Three terms. *Tu., Th., at* 10. Prerequisite, 2 and 3. Textbooks: Dexter's History of Education in the United States, Brown's Making of Our Middle Schools.

6. SEMINARY IN THE HISTORY OF EDUCATION. One credit hour. Three terms. *Tu., at* 11. Prerequisite, 4 and 5.

Study of a special period and critical investigation of assigned topics.

7. SEMINARY IN EDUCATIONAL PHILOSOPHY. One credit hour. Three terms. *W., at* 11. Prerequisite, Courses 2 and 3, and Sociology 1.

HORTICULTURE

(Horticultural Hall)

ASSISTANT PROFESSOR DAVIS, MR. THOMPSON

Courses 1, 2, 3, 6, 8, 10, 15, 16, 17, 18, and 19 were formerly listed under the same numbers in the department of Horticulture and Forestry.

1. PRINCIPLES OF HORTICULTURE. Four credit hours. Three terms. Two-year courses in Horticulture and Agriculture. Lectures and recitations, *M., W., F., at* 9; *Laboratory, Tu.,* 1 *to* 3, *or Th.,* 8 *to* 10.

2. VEGETABLE FORCING. Four credit hours. Second term. Two-year course in Horticulture. Time to be arranged. Laboratory or practicum. Assistant Professor DAVIS.

3. PLANT PROPAGATION. Four credit hours. Third term. Four year course in Agriculture. Lectures and recitations, *M., W., F., at* 9; laboratory or practicum, *M., or F.,* 1 *to* 3. Assistant Professor DAVIS.

6. PRINCIPLES OF FRUIT CULTURE. Four credit hours. Second term. Four-year course in Agriculture. Lectures and recitations, *M., W., F., at* 9; laboratory and practicum, *M. or F.,* 1 *to* 3. Assistant Professor DAVIS.

8. ORNAMENTAL PLANTS. Two credit hours. First term. Two and four-year courses in Horticulture. Time to be arranged.

9. WINDOW GARDENING AND FLORICULTURE. Two credit hours. Second term. Two and four-year courses in Horticulture. Time to be arranged.

10. HOME GARDENING. Two credit hours. Third term. Four year course in Horticulture. Time to be arranged.

15. LANDSCAPE GARDENING. Three credit hours. Third term. Two and four-year courses in Horticulture. *M., W., F., at* 8.

16. NATURE STUDY. Two credit hours. First term. *Th., at* 11; *M.,* 1 *to* 3. Assistant Professor DAVIS.

17. PLANT VARIATIONS. Two credit hours. Second term. Four-year course in Horticulture. *Tu., Th., at* 9.

18. APICULTURE. Three credit hours. Second term. Two and four-year courses in Horticulture. *Tu., Th., at* 10; practicum, *Th.,* 1 *to* 3.

19. POMOLOGY. Four credit hours. Three terms. Two-year courses in Horticulture and Agriculture. *M., W., F., at* 8; *W., or F.,* 1 *to* 3.

21. PRINCIPLES OF HORTICULTURE. Four credit hours. Three terms. Four-year course in Horticulture. *M., W., F., at* 11; *Th.,* 1 *to* 3. Assistant Professor DAVIS.

22. POMOLOGY. Four credit hours. Three terms. Four-year course in Horticulture. *Tu., Th., F., at* 10; laboratory or practicum, *W.,* 1 *to* 3. Assistant Professor DAVIS.

24. OLERICULTURE OR VEGETABLE GARDENING. Four credit hours. Three terms. Four-year course in Horticulture. Time to be arranged. Assistant Professor DAVIS.

INDUSTRIAL ARTS

(Office, Hayes Hall, Room 2)

PROFESSOR SANBORN, ASSISTANT PROFESSOR KNIGHT, MR. CROWE, MR. CASE, MR. BEEM, AND MR. DENMAN

INDUSTRIAL ARTS

1. TOOLS AND MACHINES. Three credit hours. Industrial Arts and Manual Training, third year. Short Industrial Arts, second year, first, second, and third terms. *M., W., F., at* 9. Prerequisite, Mathematics 14 or 32. Concurrent, Physics 1. Professor SANBORN.

2. DESIGNING. Three credit hours. Industrial Arts and Manual Training, third year. Short Industrial Arts, second year, second and third terms. *F.,* 1 *to* 4; *S.,* 8 *to* 11. Professor SANBORN.

3. SHOP EQUIPMENT, APPLIANCES, AND MANAGEMENT. Three credit hours. Industrial Arts, fourth year, first, second, and third terms. *M., W., F., at* 11. Prerequisite, Industrial Arts 1. Concurrent, Industrial Arts 4. Professor SANBORN.

4. ADVANCED DESIGNING. Three credit hours. Industrial Arts, fourth year, first, and second terms. *M., Tu.,* 1 *to* 4. Third term. *W., Th.,* 1 *to* 4. Prerequisite, Drawing 5. Concurrent, Industrial Arts 3. Professor SANBORN.

5. WORKSHOP APPLIANCES. Three credit hours. Mechanical Engineering, fourth year, third term. *M., W., F., at* 8. Prerequisite, Civil Engineering 19. Professor SANBORN.

8. MACHINE DRAWING. Three credit hours. Short Industrial Arts, second year, first term. *Th., F.,* 1 *to* 4. Prerequisite, Drawing 39. Professor SANBORN.

9. MACHINE DESIGN. Two credit hours. Electrical Engineering, fourth year, second term. *M., F.,* 10 *to* 12. Prerequisite, Mechanics 2, and Drawing 5. Professor SANBORN.

SHOPWORK

NOTE.—For time requirements, credit given, and all similar information concerning shopwork courses, see Time Schedule Bulletin.

3. FOUNDRY WORK. Mr. BEEM.

4. CHIPPING AND FILING. Assistant Professor KNIGHT, Mr. CASE.

7. CARPENTRY AND PATTERN MAKING. Mr. BEEM, Mr. DENMAN.

8. CABINET WORK. Prerequisite, Shop 7. Mr. BEEM, Mr. DENMAN.

9. ADVANCED PATTERN MAKING. Continuation of pattern work of Shopwork 7. Mr. BEEM, Mr. DENMAN.

11. FORGING. Mr. CROWE.

12. ADVANCED FORGING. Prerequisite, Shop 11. Mr. CROWE.

13. MACHINE WORK. Assistant Professor KNIGHT, Mr. CASE.

14. MACHINE WORK. Prerequisite, Shop 13. Assistant Professor KNIGHT, Mr. CASE.

15. ADVANCED MACHINE WORK. Prerequisite, Shop 14. Assistant Professor KNIGHT.

16. ADVANCED MACHINE WORK. Prerequisite, Shop 15. Assistant Professor KNIGHT.

17. ADVANCED MACHINE WORK. Prerequisite, Shop 16. Assistant Professor KNIGHT.

SUMMER TERM. The Summer Term in Shopwork will begin on Monday morning preceding Commencement Day and continue for four weeks. The courses open to students are Shopwork 4, 7, 11, 13, 14, and 15, three credit hours in each. Each course requires three hours a day for six days a week.

Students electing the Ceramics or the Electrical or Mechanical Engineering Course are required to take two of the three courses, Shopwork 4, 7, and 11 at the close of their first year.

Students electing the Chemical Engineering Course are required to take Shopwork courses 7 and 11 at the close of their first or second year.

Students electing the Industrial Arts Course or the Short

Course in Clay-working are required to take Shopwork 7 and 11 at the close of their first year.

The courses are open as elective to students who desire to lighten their work of the regular terms, to make up back work or to take extra work.

ITALIAN

(See Romance Languages and Literatures)

LATIN LANGUAGE AND LITERATURE

(Office, Room 307, University Hall)

PROFESSOR DERBY, PROFESSOR HODGMAN, PROFESSOR ELDEN

1. CICERO: De Senectute and De Amicitia, or Selected Letters. Four credit hours. First term. Prerequisite, four units of preparatory Latin. *M., Tu., Th., F., at* 10 *or* 11; *Tu., W., Th., F., at* 2. Professors DERBY, HODGMAN, and ELDEN.

2. LIVY: Books, 1, 2, 21, or 22, or the JUGURTHA OF SALLUST. Four credit hours. Second term. Prerequisite, course 1. *M., Tu., Th., F., at* 10 *or* 11; *Tu., W., Th., F., at* 2. Professors DERBY, HODGMAN, and ELDEN.

3. HORACE: Odes. Four credit hours. Third term. Prerequisite, courses 1 and 2. *M., Tu., Th., F., at* 10 *or* 11; *Tu., W., Th., F., at* 2. Professors DERBY, HODGMAN, and ELDEN.

4. PLINY or CICERO: Selected Letters. Three credit hours. First term. *M., W., F., at* 9 *or* 3. Professors DERBY and HODGMAN.

5. TACITUS: Germania and Agricola, or Histories or CATULLUS. Three credit hours. Second term. *M., W., F., at* 9 *or* 3. Professors DERBY and HODGMAN.

6. TERENCE: Phormio; PLAUTUS, Trinummus or Captivi. Three credit hours. Third term. *M., W., F., at* 9 *or* 3. Professors DERBY and HODGMAN.

7. MARTIAL: Selected Epigrams. Two credit hours. First term. *Tu., Th., at* 3. Professor DERBY.

8. SUETONIUS. Two credit hours. Second term. *Tu., Th., at* 3. Professor DERBY.

9. TACITUS: Historiæ or Annales. Two credit hours. Third term. *Tu., Th., at* 3. Professor DERBY.

10. THE ROMAN NOVEL: Petronius; Apuleius. Two credit hours. First term. *Tu., Th., at* 9. Prerequisite, courses 1 to 3, and 4 to 6. Professor HODGMAN.

11. SENECA: Madea; Dialogues. Two credit hours. Second term. *Tu., Th., at* 9. Prerequisite, courses 1 to 3, and 4 to 6. Professor HODGMAN.

12. CICERO: Tusculan Disputations. Two credit hours. Third term. *Tu., Th., at* 9. Prerequisite, courses 1 to 3, and 4 to 6. Professor HODGMAN.

13. CICERO: De Natura Deorum. Two credit hours. First term. *W., F., at* 8. Prerequisite, courses 1 to 3, and 4 to 6. Professor ELDEN.

14. EPIC POETRY. Two credit hours. Second term. *W., F., at* 8. Prerequisite, courses 1 to 3, and 4 to 6. Professor ELDEN.

15. HORACE: Satires. Two credit hours. Third term. *W., F., at* 8. Prerequisite, courses 1 to 3, and 4 to 6. Professor ELDEN.

*16. HORACE: Epistles. Two credit hours. First term. *Tu., Th., at* 8. Professor DERBY.

*17. TACITUS: Annals. Two credit hours. Second term. *Tu., Th., at* 8. Professor DERBY.

*17a. LATE LATIN. Two credit hours. Third term. *Tu., Th., at* 8. Professor DERBY.

18. TEACHERS' COURSE. Three credit hours. Three terms. *M., W., F., at* 9. Prerequisite, Courses 1 to 6. Professor ELDEN.

19. LATIN PROSE COMPOSITION FOR TEACHERS. Three credit hours. Three terms. *M., Tu., F., at* 10. Professor HODGMAN.

Courses 18 and 19 are essential for those students who are preparing to teach Latin. Such students are strongly advised to take also at least one advanced reading course.

20. ROMAN PRIVATE LIFE. One credit hour. Three terms. *M., at* 2. Prerequisite, courses 1 to 3, and 4 to 6. Professor DERBY.

*21. QUIZ AND REVIEW. One credit hour. Three terms. *M., at* 2. Prequisite, courses 1 to 3, and 4 to 6. Professor DERBY.

22. ROMAN AND COMPARATIVE LITERATURE. One credit hour. Three terms. *Th.*, at 3. Professor ELDEN.

Open not only to students of Latin, but also to those without a

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* Not given in 1909-1910.

knowledge of Latin who desire to become acquainted with the broader outlines of Roman literature and its influence upon the literatures of France, Germany and England.

26. PHARMACEUTICAL. Four credit hours, throughout the year. *Tu.*, 9 *to* 11; *Th., F., at* 10.

PRIMARILY FOR GRADUATES

*30a. ROMAN PUBLIC LIFE. One credit hour. Three terms. *Th., at* 8. Professor DERBY.

*30. LATIN LITERATURE. One credit hour. Three terms.

*31. LATIN PHILOLOGY. Two credit hours. Three terms. *Tu., Th., at* 8.

32. HISTORICAL LATIN GRAMMAR. Sounds and inflections. One credit hour. Three terms. *Th., at* 10. Professor HODGMAN.

33. HISTORICAL LATIN GRAMMAR. Syntax. One credit hour. Three terms. *Tu., at* 9. Professor ELDEN.

Courses 32 and 33 are deemed essential for those who make Latin a major or minor subject of study.

34. ADVANCED LATIN COMPOSITION. *Th., at* 3.

*35. PRO-SEMINARY. Textual criticism; interpretation and criticism of Latin authors.

36. ROMAN RELIGION. One credit hour. Three terms. *Th., at* 9. Lectures, and Fasti of Ovid. Professor HODGMAN.

*37. LEGAL LATIN.

38. MEDIAEVAL LATIN.

39. THE ELEMENTS OF EPIGRAPHY. Two credit hours. Three terms. *Tu., Th., at* 11. Professor DERBY.

40. PALAEOGRAPHY. One credit hour. Three terms.

*42. ROMAN SATIRE. Open to graduates and advanced undergraduates. Two credit hours. Three terms. Professor ELDEN.

Special topics related to the subjects named above may be pursued under supervision of the instructor, and graduate students, with consent of the department, may earn an additional credit hour in any course primarily for graduates. Such lines of reading and individual investigation will usually be supplementary to the regular graduate courses.

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*Not given in 1909-1910.

LAW

(Office, Page Hall)

PROFESSORS RIGHTMIRE, PAGE, KINKEAD, KNIGHT*, RANDALL*, SCHAUK, STEWART, DILLON, BUTLER, AND TUTTLE, MR. ADDISON, MR. COCKLEY, MR. GEARHART, MR. MC MAHON, MR. THOMPSON, MR. WATSON, MR. COCKERILL

FIRST YEAR

ELEMENTARY LAW. Five hours a week, first semester. Blackstone; Robinson's Elementary Law; Walker's American Law. Professor TUTTLE.

CRIMINAL LAW AND PROCEDURE. Three hours a week, first semester. May's Criminal Law. MR. COCKLEY.

CONTRACTS. Three hours a week, throughout the year. Anson on Contracts (Huffcut's Edition, 1906), Huffcut and Woodruff's Cases on Contracts (Second Edition), and selected cases. Professor PAGE.

TORTS. Two hours a week, first semester; three hours a week, second semester. Bigelow on Torts (Eighth Edition); Erwin's Cases on Torts. Professor TUTTLE.

PERSONAL PROPERTY. Two hours a week, first semester. Schouler's Law of Personal Property (abridgement). Professor RIGHTMIRE.

DEBATE AND ORATORY. One hour a week throughout the year. Assistant Professor BLANCHARD.

AGENCY. Two hours a week, second semester. Mechem on Agency and selected cases. Mr. COCKLEY.

DOMESTIC RELATIONS. Three hours a week, second semester. Tiffany, Persons and Domestic Relations. Professor RIGHTMIRE.

SALES. Two hours a week, second semester. Tiffany's Law of Sales of Personal Property. Professor RIGHTMIRE.

REAL PROPERTY I. Two hours a week, second semester. Tiffany on Real Property, Blackstone Book II and selected cases. Mr. COCKLEY.

SECOND YEAR

BAILMENTS. Two hours a week, first semester. Van Zile, Bailments and Carriers. Professor RIGHTMIRE.

NEGOTIABLE INSTRUMENTS. Four hours a week, first semester. Tiedeman's Commercial Paper and Randall's Annotations on the Negotiable Instruments Act. Mr. MCMAHON.

EVIDENCE. Three hours a week throughout the year. Greenleaf, Sixth Edition by Wigmore. Professor DILLON.

PLEADING. Three hours a week, throughout the year. Phillips on Pleading. Professor KINKEAD.

REAL PROPERTY II. Three hours a week, first semester. Tiffany on Real Property, and selected cases. Mr. ADDISON.

REAL PROPERTY III. One hour a week, second semester. Tiffany on Real Property, and selected cases. Mr. ADDISON.

PARTNERSHIP. Two hours a week, second semester. Mechem on Partnership. Mr. MCMAHON.

LEGAL ETHICS. One hour a week, second semester. Professor KINKEAD.

MOOT COURT. Two hours a week, second semester. Professor KINKEAD and Mr. COCKERILL.

WILLS. Two hours a week, second semester. Page on Wills, and selected cases. Professor PAGE.

PROBATE PRACTICE. One hour a week, second semester. Kinkead's Probate Law and Practice. Professor KINKEAD.

INSURANCE. Two hours a week, second semester. Vance on Insurance and selected cases. Professor PAGE.

PATENT AND COPYRIGHT LAW. Eight Lectures, second semester. Professor RIGHTMIRE.

DEBATING. One hour a week throughout the year. Assistant Professor BLANCHARD.

THIRD YEAR

CONSTITUTIONAL LAW. Three hours a week, first semester. Black's Constitutional Law aand Boyd's Cases. Professor TUTTLE.

THE FEDERAL CONSTITUTION. Ten lectures in the first semester. HON. D. K. WATSON.

CORPORATIONS (Private). Two hours a week throughout the year. Taylor on Private Corporations. Professor PAGE.

EQUITY JURISPRUDENCE. Four hours a week, first semester. Merwin, The Principles of Equity and Equity Pleadings. Professor SHAUCK.

QUASI CONTRACTS. Two hours a week, first semester. Woodru's Annoted Cases on Quasi Contracts. Professor PAGE.

REAL PROPERTY IV. Two hours a week, first semester. Tiffany on Real Property, Part IV. Mr. THOMPSON.

MOOT COURT. Two hours a week, first semester. Professor KINKEAD and Mr. COCKERILL.

FEDERAL PRACTICE. Two hours a week, second semester. Hughes' Federal Procedure. Professor STEWART.

CORPORATIONS (Municipal). Three hours a week, second semester. Abbott on Public Corporations. Professor BUTLER.

SURETYSHIP. Two hours a week, second semester. Stearns, The Law of Suretyship. Mr. THOMPSON.

TRIAL PRACTICE. Two hours a week, second semester. Kinkead's Code Pleading. Professor KINKEAD.

CIRCUIT AND SUPREME COURT PRACTICE. Fifteen Lectures, first half of second semester. Professor SHAUCK.

DAMAGES. Two hours a week, second semester. Mechem's Cases on Damages. Professor TUTTLE.

CONFLICT OF LAWS. (Private International Law.) Two hours a week, second semester. Minor, Conflict of Laws. Professor TUTTLE.

BANKRUPTCY. Ten Lectures, second half of second semester. Mr. GEARHEART.

MANUAL TRAINING

(See Industrial Arts)

MATHEMATICS

(Office, Room 314, University Hall.)

PROFESSOR BOHANNAN, PROFESSOR MC COARD, PROFESSOR SWARTZEL, PROFESSOR KUHN, ASSOCIATE PROFESSOR ARNOLD, ASSOCIATE PROFESSOR RASOR, ASSISTANT PROFESSOR PRESTON, ASSISTANT PROFESSOR BARRIS, ASSISTANT PROFESSOR MORRIS, MR. WEST

21. COLLEGE ALGEBRA. Three credit hours. First term. *M., W., F., at* 9, 11, *or* 1. Professor BOHANNAN, Professor MCCOARD, Associate Professor RASOR, Assistant Professor MORRIS.

22. PLANE TRIGONOMETRY. Three credit hours. Second term. *M., W., F., at* 9, 11, *or* 1. Professor BOHANNAN, Professor MCCOARD, Associate Professor RASOR, Assistant Professor MORRIS.

23. ELEMENTARY ANALYTICAL GEOMETRY AND CALCULUS. Three credit hours. Third term. *M., W., F., at* 9, 11, *or* 1. Prerequisite, course 22. Professor BOHANNAN, Professor MCCOARD, Associate Professor RASOR, Assistant Professor MORRIS.

24. PROBLEMS ON ALL PAST WORK. One credit hour. Three terms. *F., at* 10. Associate Professor ARNOLD.

28. ANALYTICAL GEOMETRY AND CALCULUS. Three credit hours. Three terms. Prerequisite, courses 21, 22, 23, or 31, 32, 33. Associate Professor RASOR.

31. COLLEGE ALGEBRA. Five credit hours. First term. *M., Tu., W., Th., F., at* 8, 9, 11, 1, 2, *or* 3. Professors BOHANNAN, MCCOARD, SWARTZEL, KUHN, Associate Professors ARNOLD, RASOR, Assistant Professors PRESTON, BAREIS, MORRIS, Mr. WEST.

32. PLANE TRIGONOMETRY. Five credit hours. Second term. *M., Tu., W., Th., F., at* 8, 9, 11, 1, 2, *or* 3. Professors BOHANNAN, MCCOARD, SWARTZEL, KUHN, Associate Professors ARNOLD, RASOR, Assistant Professors PRESTON, BAREIS, MORRIS, MR. WEST.

33. ANALYTICAL GEOMETRY. Five credit hours. Third term. *M., Tu., W., Th., F., at* 8, 9, 11, 1, 2, *or* 3. Prerequisite, course 22 or 32. Professors BOHANNAN, MCCOARD, SWARTZEL, KUHN, Associate Professors ARNOLD, RASOR, Assistant Professors PRESTON, BAREIS, MR. WEST.

41, 42, 43. CALCULUS. Five credit hours. Three terms. *M., Tu., W., Th., F., at* 8, 9, *or* 11. Prerequisite, courses 21, 22, 23, or 31, 32, 33. Professors BOHANNAN, MCCOARD, SWARTZEL, KUHN, Associate Professors ARNOLD, RASOR, Assistant Professors BAREIS, MORRIS.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

Prerequisite, Differential and Integral Calculus

34. DETERMINANTS. Three credit hours. First term. Assistant Professor BAREIS.

35. THEORY OF EQUATIONS. Three credit hours. Second and third terms. Professor MCCOARD.

36, 37. PLANE AND SOLID ANALYTICAL GEOMETRY. Three credit hours. Plane Analytics will be studied the first term and Solid Analytics the second and third terms. Associate Professor RASOR.

38. ADVANCED CALCULUS. Three credit hours. First, second, and third terms. Assistant Professor MORRIS.

39. DIFFERENTIAL EQUATIONS. Three credit hours. First, second and third terms. Professor SWARTZEL.

74. DIFFERENTIAL EQUATIONS. Three credit hours. Second term. Elective. Prerequisite, Mathematics 43. Text-book: Boyd's Differential Equations.

40. PROJECTIVE GEOMETRY. Three credit hours. First and second terms. Professor BOHANNAN.

44. NON-EUCLIDIAN GEOMETRY. Three credit hours. Third term. Professor KUHN.

45. MODERN HIGHER ALGEBRA. Three credit hours. First, second, and third terms. Associate Professor ARNOLD.

46. THE TEACHING OF MATHEMATICS. Three credit hours. Third term. Professor SWARTZEL.

*47. THE MATHEMATICS OF INSURANCE AND INVESTMENTS. Two credit hours. Three terms.

48. THE THEORY OF STATISITICS. Two credit hours. Three terms. This course alternates with 34. Professor KUHN.

FOR GRADUATES

49. (a) INFINITE SERIES AND PRODUCTS; (b) THE FUNCTIONS OF A REAL VARIABLE; (c) CALCULUS OF VARATIONS; (d) THE THEORY OF FUNCTIONS OF A COMPLEX VARIABLE; (e) ELLIPTIC FUNCTIONS; (f) POTENTIAL FUNCTION; (g) FOURIER'S SERIES AND SPHERICAL HARMONICS; (h) GROUPS; (i) THEORY OF NUMBERS; (j) HIGHER PLANE CURVES; (k) INVARIANTS; (l) DIFFERENTIAL GEOMETRY; (m) THE MATHEMATICAL THEORY OF ELECTRICITY AND MAGNETISM; (n) THE MATHEMATICAL THEORY OF LIGHT; (o) THE MATHEMATICAL THEORY OF SOUND; (p) THE HISTORY OF MATHEMATICS. Professors BOHANNAN, MCCOARD, SWARTZEL, KUHN, Associate Professors ARNOLD, RASOR, Assistant Professors BARKIS, MORRIS.

MECHANICAL ENGINEERING.

(Office, Engineering Laboratory, Room 244)

PROFESSOR MAGRUDER, PROFESSOR HITCHCOCK, ASSISTANT PROFESSOR JUDD, ASSISTANT PROFESSOR RIGDON, MR. FISHER, MR. CALDERWOOD

3. MECHANISM. Five credit hours. Mechanical Engineering, third year, second term. *M., Tu., W., Th., F., at* 8. Prerequisite, Drawing 33 and Physics 2. Two credit hours. Mechanical Engineering, third year, third term. *M.,* 1 *to* 5. Professor HITCHCOCK.

12. EXPERIMENTAL ENGINEERING LABORATORY. Two credit hours. Mechanical Engineering, third year, first term. *W.,* 1 *to* 5, *or S.,* 8 *to* 12. Industrial Arts, fourth year, first term. *Th.,* 1 *to* 5. Prerequisite, Drawing 33 and Physics 2. Concurrent, Mechanics 1,

* Not given in 1909-1910.

or Industrial Arts 3. Assistant Professor RIGDON, Mr. CALDERWOOD.

14. Continuation of 27. Five credit hours. Mechanical Engineering, fourth year, second term. *M.*, 10 *to* 12; *M., and T.*, 1 *to* 5. Concurrent, Mechanical Engineering 34. Professor HITCHCOCK, Assistant Professors JUDD and RIGDON.

15. Continuation of 14. Four credit hours. Mechanical Engineering, fourth year, third term. *M., Tu., F.*, 9 *to* 12. Professor HITCHCOCK, Assistant Professors JUDD and RIGDON.

18. MACHINE DESIGN. Five credit hours. Chemical and Mechanical Engineering, fourth year, first, and second terms. *M., Tu., W., Th., F., at* 9. Prerequisite, Drawing 5 or 33; Mechanics 3; Metallurgy 4. Professor MAGRUDER.

19. MACHINE DESIGN. Five credit hours. Chemical and Mechanical Engineering, fourth year, third term. *M.*, 1 *to* 5, *Tu., W.*, 1 *to* 4. Prerequisite, Mechanical Engineering 18. Professor MAGRUDER.

21. THESIS WORK. Five credit hours. Mechanical Engineering, fourth year, third term. Professors MAGRUDER and HITCHCOCK.

23. MATERIALS OF CONSTRUCTION. Four credit hours. Architecture, fourth year, first term. *Tu.*, 8 *to* 10; *Th.*, 8 *to* 11; *F., at* 8. Prerequisite, Mechanics 1. Professor HITCHCOCK.

24. EXPERIMENTAL ENGINEERING LABORATORY. Three credit hours. First and second terms. Elective to third and fourth year engineers. (Not given in 1909-1910.)

27. Continuation of 12. Five credit hours. Mechanical Engineering, fourth year, first term. *M., Tu.*, 1 *to* 5; *Tu.*, 10 *to* 12. Concurrent, Mechanical Engineering 33. Professor HITCHCOCK, Assistant Professors JUDD and RIGDON.

28. EXPERIMENTAL ENGINEERING LABORATORY. Two credit hours. Electrical Engineering, third year, third term. *W., or F.*, 1 *to* 5. Manual Training, fourth year, third term. *F.*, 1 *to* 5. Concurrent, Mechanical Engineering 32. Assistant Professors JUDD and RIGDON.

29. Continuation of 28. Three credit hours. Electrical Engineering, fourth year, first term. *Th., or F.*, 10 *to* 12, 1 *to* 5. Two credit hours. Industrial Arts, fourth year, second term. *W.*, 1 *to* 5. Assistant Professors JUDD and RIGDON.

30. Continuation of 29. Two credit hours. Electrical Engineering, fourth year, second term. *W., or Th.*, 1 *to* 5. Industrial

Arts, fourth year, third term. *F.*, 1 *to* 5. Assistant Professors JUDD and RIGDON.

31. HYDRAULIC MACHINERY. Two credit hours. Mechanical Engineering, fourth year, third term. *Tu., Th., at* 8. Prerequisite, Mechanics 3, and Mechanical Engineering 33. Professor HITCHCOCK.

32. MECHANICAL ENGINEERING OF POWER PLANTS. Five credit hours. Chemical and Mechanical Engineering and Industrial Arts, third year, third term. *M., Tu., W., Th., F., at* 8. Electrical Engineering, third year, third term. *M., Tu., W., Th., F., at* 9. Manual Training, fourth year, third term. *M., Tu., W., Th., F., at* 8. Prerequisite, Mechanical Engineering 3, or Industrial Arts 1; Drawing 5 or 22, and Physics 2. Professor MAGRUDER.

33. STEAM ENGINES AND BOILERS. Five credit hours. Electrical and Mechanical Engineering, fourth year, first term. *M., Tu., W., Th., F., at* 8. Prerequisite, Mechanics 3, and Mechanical Engineering 32. Professor MAGRUDER.

34. THERMODYNAMICS. Five credit hours. Mechanical Engineering, fourth year, second term. *M., Tu., W., Th., F., at* 8. Prerequisite, Mechanical Engineering 33. Professor MAGRUDER.

35. EXPERIMENTAL ENGINEERING LABORATORY. Three credit hours. Option, Chemical Engineering, fourth year, second term. *F., at* 11; *F.*, 1 *to* 5. Prerequisite, Mechanics 3, and Mechanical Engineering 32. Assistant professors JUDD and RIGDON,

36. EXPERIMENTAL ENGINEERING LABORATORY. Five credit hours. Ceramic and Mine Engineering, fourth year, third term. *Tu., Th., at* 9, *Tu.*, 10 *to* 12, 1 *to* 5, *or Th.*, 10 *to* 12, 1 *to* 5. Prerequisite, Mechanics 3, and Metallurgy 4. Professor HITCHCOCK, Assistant Professors JUDD and RIGDON.

37. MECHANISM. Four credit hours. Electrical Engineering, third year, second term. *M., Tu., Th., F., at* 8 *or* 10. Assistant Professors JUDD and RIGDON.

38. INSPECTION TRIP TO THE EAST. Given only in the even years. Mechanical Engineering, third or fourth year.

39. INSPECTION TRIP TO THE WEST. Given only in the odd years. Mechanical Engineering, fourth or third year.

40. WRITTEN REPORT. Course of assigned reading upon processes of manufacture and power plants may be reported upon by

third and fourth-year students in Mechanical Engineering as a substitute for 38 on presentation of reasons satisfactory to the head of the department.

41. Similar to 40. A substitute for 39.

42. HEATING AND VENTILATING. Three credit hours. Architecture, fourth year, second term. *M., W., F., at* 9. Professor HITCHCOCK.

43. MECHANISM AND DESIGN. Five credit hours. Ceramic Engineering, third year, third term. *M., Tu., W., Th., F., at* 8. Assistant Professor JUDD.

*44. MECHANISM AND MACHINE DESIGN. Four credit hours. Civil Engineering, fourth year, second term. *M., T., Th., at* 11. Prerequisite, Mechanics 3. Professor MAGRUDER.

45. STEAM TURBINES. Three credit hours. Mechanical Engineering, fourth year, third term. *M., W., F., at* 8. Prerequisite, Mechanical Engineering 34. Professor HITCHCOCK.

46. EXPERIMENTAL ENGINEERING. Five credit hours. Civil Engineering, fourth year, first term. *W., at* 11, *W.,* 1 *to* 5, *S.,* 8 *to* 12. Prerequisite, Drawing 33, and Mechanics 3. Professor HITCHCOCK, Assistant Professors JUDD and RIGDON.

47. Continuation of 46. Three credit hours. Civil Engineering, fourth year, second term. *Th., at* 11; *F.,* 1 *to* 5. Professor HITCHCOCK, Assistant Professors JUDD and RIGDON.

MECHANICS

(Office, Mines Building, Room 219)

PROFESSOR J. E. BOYD, ASSOCIATE PROFESSOR CODDINGTON, MR. BUCHER

1. STATICS. Five credit hours. Architecture, Ceramic, Chemical, Civil, Electrical, Mechanical, and Mine Engineering, third year, first term. *M., Tu., W., Th., F.,* 8, 9, *or* 11. Prerequisite, Mathematics 43. Text-book: Hoskins' Theoretical Mechanics.

2. STRENGTH OF MATERIALS, KINETICS. Five credit hours. Architecture, Ceramic, Chemical, Civil, Electrical, Mechanical, and Mine Engineering, third year, second term. *M., Tu., W., Th., F.,* 8, 9, 11, *or* 2. Prerequisite, Mechanics 1. Text-book: Merriman's Mechanics of Materials, Cambria Steel.

*Not given in 1909-1910.

3. KINETICS AND HYDRAULICS. Five credit hours. Chemical, Civil, Electrical, Mechanical, and Mine Engineering, third year, third term. *M., Tu., W., Th., F.*, 8, 9, *or* 11. Prerequisite, Mechanics 2. Text-books: Hoskins' Theoretical Mechanics, Goodman's Mechanics of Engineering.

4. ADVANCED THEORETICAL MECHANICS. Three credit hours. Three terms. For graduates and advanced undergraduates. Prerequisite, Mechanics 3 and Differential Equations.

METALLURGY AND MINERALOGY.

(Office, School of Mines Building)

PROFESSOR N. W. LORD, ASSOCIATE PROFESSOR SOMERMEIER,* ACTING ASSISTANT PROFESSOR DEMOREST, MR. MC QUIGG

2. MINERALOGY AND CRYSTALLGRAPHY. Three credit hours. Mine Engineering, second year, third term. *M., W., F., at* 11. Prerequisite, Chemistry 12. Lectures arranged so as to be preparatory to Determinative Mineralogy. Professor LORD.

3. DETERMINATIVE MINERALOGY. Five credit hours. Mine Engineering, third year, third term. *M., Tu.,* 1 *to* 5. Prerequisite, Metallurgy 2. Professor LORD, Assistant Professor DEMOREST.

4. METALLURGY. Five credit hours. Mine Engineering, third year, first, and second terms. Industrial Arts and Mechanical Engineering, third year, first term, and first two-fifths of second term. Ceramics, fourth year, first term. *M., Tu., W., Th., F., at* 9. Prerequisite, Chemistry 12, and Physics 2. Professor LORD.

5. METALLURGICAL LABORATORY. Five credit hours. Mine Engineering, second year, second, and third terms. *M., Tu., W., or W., Th., F.*, 1 *to* 4. Mine Engineering, third year, first term. Three credit hours. *Th., F.*, 1 *to* 4. Prerequisite, Chemistry 12, and one term each Chemistry 20, and Chemistry 40. Assistant Professor DEMOREST.

6. ASSAYING. Five credit hours. Mine Engineer, third year, second term. *M., Tu., at* 11; laboratory, *M., Tu.*, 1 *to* 5, *or Th., F.*, 1 *to* 5. Prerequisite, one term of Metallurgy 5. Professor LORD, Assistant Professor DEMOREST.

7. METALLURGICAL CONSTRUCTION. Three credit hours. Mine Engineering, fourth year, second term. *M., F., at* 10. Prerequisite, Drawing 5, Mechanics 3, Metallurgy 4 and 8. Professor LORD, Professor RAY.

*Absent on leave, 1908-1909.

8. ORE DRESSING AND COAL WASHING. Two credit hours. Mine Engineering, fourth year, first term. *M., F., at* 10. Prerequisite, Metallurgy 4. Professor LORD.

9. MINERAL CHEMISTRY. Five credit hours. Short Mining, second year, third term. *M., Tu., W., Th., F., at* 8. Prerequisite, Chemistry 3. Professor LORD.

10. METALLURGICAL PROBLEMS. Two credit hours. Mine Engineering, third year, second term. *Tu., Th., at* 10. Prerequisite, Metallurgy 4, one term. Problems and examples in general Metallurgy. Professor LORD, Assistant Professor DEMOREST.

11. ADVANCED METALLURGICAL LABORATORY. Three and five credit hours. Elective, three terms. Prerequisites, Metallurgy 2, 4, and 5, or equivalent. Mine Engineering, third year, third term. Three credit hours. *Th., F.,* 1 *to* 4. Professor LORD, Assistant Professor DEMOREST.

*12. ECONOMIC MINERALOGY. Two credit hours. Civil Engineering, fourth year, second term. Professor LORD. (Offered in 1910-1911.)

METEOROLOGY

(Townshend Hall)

MR. J. WARREN SMITH

1. METEOROLOGY. Two credit hours. Second term. Text-book, Waldo. Time to be arranged. Formerly Astronomy 3.

MILITARY SCIENCE AND TACTICS.

(Office, The Armory)

CAPTAIN GEORGE L. CONVERSE, U. S., RETIRED

The Military Department is open five days during each week of each term. Required of all students first and second year, unless excused by the Military and Gymnasium Board.

1. MILITARY DRILL. One credit hour. First and third terms. *M., Tu., W., at* 11 *or* 4.

2. MILITARY DRILL. One credit hour. Second term; Drill Regulations. *M., Tu., W., at* 11 *or* 4. Gallery Practice. *M., Tu., W., Th.,* 1 *to* 5.

*Not given in 1909-1910.

MINE ENGINEERING

(Office, School of Mines Building)

PROFESSOR RAY, MR. MINOR

1. MINE SURVEYING. Five credit hours. Short Mining, second year, first term. *M., Tu., W., Th., F., at* 11. Prerequisite, Mathematics 14.

2. VENTILATION AND HAULAGE. Five credit hours. Short Mining, second year, second term. *M., Tu., W., Th., F., at* 11. Prerequisite, Mine Engineering 1, and Physics 1.

3. MINE OPERATING. Five credit hours, short mining, second year, third term. *M., Tu., W., Th., F., at* 11. Prerequisite, Mine Engineering 2.

4. MINE SURVEYING. Five credit hours. Mine and Ceramic Engineering, third year, first term. *M., Tu., Th., F., at* 10; *M.,* 1 *to* 3. Prerequisite, Drawing 33, and Mathematics 32.

5. MINE ENGINEERING. Five credit hours. Lectures. Mine Engineering, fourth year, first, second, and third terms. *M., Tu., W., Th., F., at* 8. Prerequisite, Mechanics 3, and Mine Engineering 4. Concurrent, Geology 2.

6. PLANS AND SPECIFICATIONS. Five credit hours. Mine Engineering, fourth year, third term. *M., Tu., at* 10, *W., F.,* 1 *to* 4. Prerequisite, Metallurgy 7, and Mine Engineering 5.

7. SURVEYING. One credit hour. Mine Engineering, third year. Short Mining, second year, second term. Prerequisite, Mine Engineering 1 or 4.

PHARMACY

(First Floor, Chemical Building)

PROFESSOR KAUFFMAN, ASSOCIATE PROFESSOR DYE, MR. SPEASE

6. PHARMACY. Four credit hours. First term. Lecture, *M., W., F., at* 9. Quiz, *M., at* 11. Professor KAUFFMAN.

7. PHARMACY. Six credit hours. Second term. *M., W., F., at* 9; *Th., F.,* 1 *to* 4. Professor KAUFFMAN, Associate Professor DYE, Mr. SPEASE.

8. DISPENSATORIES. Six credit hours. Third term. Time same as Pharmacy 7. Professor KAUFFMAN, Associate Professor DYE, Mr. SPEASE.

9. PHARMACEUTICAL CHEMISTRY. Six credit hours. First term. *Tu., Th., at* 11; *Tu., W.,* 1 *to* 4, *or W., Th.,* 1 *to* 4. Professor KAUFFMAN, Associate Professor DYE, Mr. SPEASE.

10. EXTEMPORANEOUS PHARMACY. Six credit hours. Second term. *Tu., Th., at* 10; *M., Tu.,* 1 *to* 4. Professor KAUFFMAN, Associate Professor DYE, Mr. SPEASE.

11. GENERAL PRACTICE. Six credit hours. Third term. *Tu., Th., at* 11; *W., Th.,* 1 *to* 4. Professor KAUFFMAN, Associate Professor DYE, Mr. SPEASE.

12. MATERIA MEDICA. Three credit hours. First term. *M., W., F., at* 11. Associate Professor DYE.

13. MATERIA MEDICA. Three credit hours. Second term. *M., W., F., at* 11. Associate Professor DYE.

14. MATERIA MEDICA AND THERAPEUTICS. Three credit hours. Third term. *M., W., F.,* at 11. Associate Professor DYE.

15. PHARMACEUTICAL ASSAYING. Five credit hours. First term. *Tu. Th., at* 10; *M., Tu.,* 1 *to* 4. Professor KAUFFMAN, Associate Professor DYE, Mr. SPEASE.

16. METHODS OF MANUFACTURE. Five credit hours. Second term. *Tu., Th., at* 10; *M., Tu.,* 1 *to* 4. Professor KAUFFMAN, Associate Professor DYE, Mr. SPEASE.

17. GENERAL PHARMACY. Five credit hours. Third term. *Tu., Th.,* 10; *M., Tu.,* 1-4. Professor KAUFFMAN, Associate Professor DYE, Mr. SPEASE.

18. PHARMACOGNOSY. Three credit hours. Second term. *F., at* 9; *S.,* 8 *to* 12; *Tu., W., Th., or F.,* 1 *to* 4. Associate Professor DYE.

19. PHARMACOGNOSY. Three credit hours. Third term. Time same as 18. Associate Professor DYE.

20. PHARMACOGNOSY. Three credit hours. First term. Time same as 18. Associate Professor DYE.

21. TOXICOLOGY. Four credit hours. Third term. Time to be arranged. *M., W., Th., F., at* 8. Associate Professor DYE.

PHILOSOPHY

(Office, Room 321, University Hall.)

PROFESSOR SCOTT AND PROFESSOR DAVIES.

100. ELEMENTS OF PHILOSOPHY. Three credit hours. First and second terms, followed in third term by Philosophy 101 (Logic). Open to students in the first and second years. *M., W., F., at* 11. Professor SCOTT.

101. INTRODUCTORY LOGIC. Three credit hours. Third term. *M., W., F., at* 11. Professor SCOTT.

This course with Philosophy 100 or Psychology 1 forms a continuous course for a year. Recitations and lectures, with practical work in the analysis and criticism of reasoning processes.

103. ETHICS. Two credit hours. Three terms. *Tu., Th., at* 11. Professor SCOTT.

106. INTRODUCTION TO PHILOSOPHY. Three credit hours. Three terms. *M., W., F., at* 2. Prerequisite, Philosophy 103; or Philosophy 100 and 101; or Psychology 1 and Philosophy 101; or Psychology 1 and Philosophy 152. Professor SCOTT.

107. THEORY OF KNOWLEDGE. Three credit hours. First and second terms. *M. W. F., at* 3. Prerequisite, Philosophy 106. Professor SCOTT.

108. METAPHYSICS. Three credit hours. Third term. *M., W., F., at* 3. Prequisite, Philosophy 106 and 107. Professor SCOTT.

112. ADVANCED ETHICS. Two credit hours. Three terms. *Tu., Th., at* 3. Prerequisite, Philosophy 103. Professor SCOTT.

115. AESTHETICS. Two credit hours. Three terms. *Tu., Th., at* 2. Open to first year students. Professor DAVIES.

118. PHILOSOPHY OF SCIENCE. Two credit hours. Three terms. *Tu., Th., at* 2. Prerequisite, one year of elementary work, including Philosophy 101. Alternative with Philosophy 119. Professor SCOTT.

119. PHILOSOPHY and RELIGION. Two credit hours. Three terms. *Tu., Th., at* 2. Prerequisite, at least one year of elementary work. Alternative with Philosophy 118. Professor SCOTT.

123. PHILOSOPHY OF MIND. Two credit hours. Three terms. *Tu., Th., at* 11. Prerequisite, Philosophy 152, and Psychology 1, or Philosophy 106. Professor DAVIES.

141. ETHICAL SEMINARY. Two credit hours. Three terms. Prerequisite, one year of elementary work and Philosophy 112. Professor SCOTT.

142. PHILOSOPHICAL SEMINARY. Two credit hours. Three terms. Prerequisite, one year of elementary work and Philosophy 106. Professor DAVIES.

151. HISTORY OF ANCIENT PHILOSOPHY. Three credit hours. First term. *M., W., F., at* 2. Open to first year students. Professor DAVIES.

152. HISTORY OF MODERN PHILOSOPHY. Three credit hours. Second and third terms. *M., W., F., at* 2. Open to first year students. Prerequisite, Philosophy 151. Professor DAVIES.

155. HISTORY OF CHRISTIAN PHILOSOPHY. Three credit hours. Three terms. Time to be arranged. Open to first year students. Professor DAVIES.

*157. PLATO. Two credit hours. Three terms. *Tu., Th., at* 8. Prerequisite, one year of elementary work, including Philosophy 151. Alternative with Philosophy 159. Professor DAVIES.

159. ARISTOTLE. Two credit hours. Three terms. *Tu., Th., at* 8. Prerequisite, one year of elementary work, including Philosophy 151. Alternative with Philosophy 157. Professor DAVIES.

161. DESCARTES TO KANT. Three credit hours. Three terms. *M., W., F., at* 11. Prerequisite, one year of elementary work, including Philosophy 152. Professor DAVIES.

*166. KANT TO HEGEL. Three credit hours. Three terms. *M., W., F., at* 11. Prerequisite, one year of elementary work, including Philosophy 152. Professor DAVIES.

168. RECENT AND CURRENT PHILOSOPHY. Three credit hours. Three terms. *M., Th., F., at* 10. Prerequisite, one year of elementary work, including Philosophy 152. Professor SCOTT.

PHYSICAL EDUCATION FOR MEN.

(The Gymnasium.)

DR. WINGERT, MR. KIBLER

1. PHYSICAL EDUCATION, consisting of a graded systematic course of healthful body-building exercise and recreation, is required two hours per week during the first year of each student's residence at the University, or until he has successfully completed three terms of this work.

All first year men are required to take a physical examination at opening of the Fall term.

PHYSICAL EDUCATION FOR WOMEN.

(The Gymnasium.)

MISS SEARING.

1. GYMNASIUM. One credit hour. Three terms.

A physical examination is made of all women in the department by the director during the early part of the fall term. Well regu-

*Not given in 1909-1910.

lated physical exercises are given to meet the needs of every student; four hours per week during first year of student's residence at University is required. *M., Tu., Th., F., at* 9, 10, *or* 11; *W.,* 9 *or* 11.

2. GYMNASIUM. One credit hour. Three terms. Four hours per week required of all young women during second year of course. *M., Tu., Th., F.,* 9, 10 *or* 11; *W.,* 9 *or* 11.

PHYSICS

(Office, Room 24, Physics Hall.)

PROFESSOR COLE, PROFESSOR THOMAS, ASSOCIATE PROFESSOR KESTER, ASSISTANT PROFESSOR EARHART, ASSISTANT PROFESSOR BLAKE, DR. BAILEY, MR. SHEARD, MR. KELLOGG, MR. BARNES, MR. NUSBAUM.

1. ELEMENTARY PHYSICS. Recitations, experimental lectures and laboratory. Text: Millikan & Gale, "Elements of Physics." Five credit hours. Short Clay-working, Industrial Arts, Mining, first year, first, and second terms. *Tu., W., Th., F., at* 11, and one three-hour laboratory period—*W., or Th.,* 1 *to* 4, *or S.,* 8 *to* 11. Prerequisite, Mathematics 14. Assistant Professor EARHART.

2. GENERAL PHYSICS. Three credit hours. Three terms. *M., W., at* 9, *or Tu., Th., at* 11. One two-hour period experimental work and one quiz to be arranged. Prerequisite, Mathematics 21, 22, 23 or 31, 32, 33. Professor COLE, assisted by seven others.

4. ELECTRICITY AND MAGNETISM. Three credit hours. First term. *M., Tu., Th., at* 10. Professor COLE.

5. PHYSICAL LABORATORY. Four credit hours. Electrical Engineering, second year, third term. *M., Tu.,* 1 *to* 4; *W.,* 1 *to* 3, *or Th., F.,* 1 *to* 4; *S.,* 8 *to* 10. Option, Manual Training, third year, first, second, and third terms. *M., Tu.,* 1 *to* 4; *W.,* 1 *to* 3. Prerequisite, Physics 31, 32 and 33. Professor THOMAS, Mr. BARNES.

6. PHYSICAL LABORATORY. Five credit hours. Electrical Engineering, third year, first, and second terms. *M., Tu., W.,* 1 *to* 4, *or Th., F.,* 1 *to* 4, and *S.,* 8 *to* 11. Prerequisite, Physics 5. Concurrent, Physics 4. Professor THOMAS, Mr. BARNES.

7. PHYSICAL LABORATORY. Two credit hours. Mechanical Engineering, second year, third term. *M., Tu.,* 1 *to* 3, *or Th., F.,* 1 *to* 3. Three to five credit hours, first, second, and third terms. Elective. Concurrent, Physics 2.

9. PHYSICAL LABORATORY. Three to five credit hours. A second year's work in Physical Laboratory. Elective. Prerequisite, Physics 6 or 7.

11. GENERAL PHYSICS. Three credit hours. Three terms. Lecture, *W., at* 11 *or* 2. Laboratory, *Tu., Th.,* 8 *to* 10 *or Th., F.,* 2 *to* 4. Assistant Professor BLAKE.

12. LABORATORY. Three to five credit hours. Three terms. *M., Tu., W.,* 1 *to* 4. Prerequisite, Course 2 or 11 (or may accompany Course 2). Associate Professor KESTER.

17. THE TEACHING OF PHYSICS. Three credit hours. Third term. Prerequisite, two terms of college work in physics. Time to be arranged.

18. THE PRODUCTION AND USE OF ELECTRIC CURRENTS. Theory and practice. Three credit hours. Third term. Time to be arranged. Prerequisite, course 11 or some additional general laboratary course desirable. Professor THOMAS.

31, 32. GENERAL PHYSICS. (Replace courses 2 and 3.) Five credit hours. Second year, first, and second terms. Courses in Ceramic, Electrical, and Mechanical Engineering, Industrial Arts, and Manual Training. Lectures. *M., W., at* 9, *or Tu., Th., at* 11; also two recitations, problems and one three-hour laboratory period per week. Prerequisite, Preparatory Physics, and Mathematics 32. Professor COLE, Mr. SHEARD, and others.

33. Continuation of Physics 32. Five credit hours, third term. Course in Ceramic and Electrical Engineering, Industrial Arts, and Manual Training.

41. GENERAL PHYSICS. Four credit hours, second year, first term. Courses in Architecture and Civil Engineering. Lectures. *M., W., at* 9, *or Tu., Th., at* 11; also two recitations and one two-hour laboratory period per week. Prerequisites, Preparatory Physics, and Mathematics 32. Professor COLE, Mr. SHEARD, and others.

42. Continuation of Physics 41. Four credit hours, second year, second term. Course in Civil Engineering.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

13. ADVANCED LABORATORY. Three to five credit hours. Three terms. Prerequisite, Course 2 or 11, and Course 12. Professor COLE, Associate Professor KESTER, Assistant Professor EARHART, Assistant Professor BLAKE.

*14a. ADVANCED MECHANICS AND MOLECULAR PHYSICS. Three credit hours. Three terms. *Tu., W., Th., at* 4. Prerequisite, Phys-

*Not given in 1909-1910.

ics 2 or 11; Calculus precedes or accompanies. First term, Mechanics, Associate Professor KESTER; second term, Molecular Physics and Heat; third term, Electronic Theory, Assistant Professor EARHART.

This course alternates with 14c.

14c. ADVANCED LIGHT AND ELECTRICITY. Three credit hours. Three terms. *Tu., W., Th., at* 4. Prequisite, Physics 2 or 11; Calculus precedes or accompanies. First term, Light, Mr. SHEARD; second term, Electricity and Magnetism, Assistant Professor EARHART; third term, Radioactivity, Professor COLE. This course alternates with 14a.

Courses 14a and 14c together constitute a two-year cycle, moderately advanced, covering the whole subject of Physics.

16. PHYSICAL SEMINARY. One credit hour. Three terms. *M., at* 4. Prerequisite, a year of college work in physics. Professor COLE.

*21. THEORETICAL PHYSICS. An advanced course in Light. Two hours. Three terms. Prerequisite, Physics 2, and Mathematics 41, 42, 43, or equivalents. Dr. BAILEY.

28. THE THEORY AND PRACTICE OF ELECTRICAL MEASUREMENTS. Three to five hours. Three terms. Prerequisite, Physics 2, or equivalent, a course in Electrical Measurement, and Mathematics 41, 42, 43, or equivalent. Professor THOMAS.

PRIMARILY FOR GRADUATES

22. THEORY OF OSCILLATIONS WITH THEIR APPLICATIONS TO WIRELESS TELEGRAPHY. Three hours. Three terms. Physics 2, and Mathematics 41, 42, 43, or equivalents. Assistant Professor BLAKE.

23. POTENTIAL FUNCTION WITH SPECIAL REFERENCE TO ELECTRICITY AND MAGNETISM. Three credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Assistant Professor BLAKE.

24. CONDUCTION OF ELECTRICITY THROUGH METALS FROM THE STANDPOINT OF THE ELECTRONIC THEORY. Three credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Assistant Professor BLAKE.

25. THEORETICAL MECHANICS. Three credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Assistant Professor BLAKE.

*Not given in 1909-1910.

26. THERMODYNAMICS AND ELECTROLYTIC CONDUCTION. Two credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Associate Professor KESTER.

*27. THEORY OF ELECTRICITY AND MAGNETISM. Three credit hours. Three terms. Prerequisites, Physics 2, and Mathematics 41, 42, 43, or equivalents. Associate Professor KESTER.

Courses 25, 26, 21 and 27 together form an advanced two-year cycle, covering the whole ground of physics.

15. RESEARCH LABORATORY. Three to five credit hours. Three terms. Prerequisites, two years of laboratory work in physics. Professor COLE, Professor THOMAS, Associate Professor KESTER, Assistant Professor EARHART, Assistant Professor BLAKE.

PHYSIOLOGY

(See Anatomy and Physiology)

POLITICAL ECONOMY

(See Economics and Sociology.)

POLITICAL SCIENCE

(See American History and Political Science.)

PRINCIPLES AND PRACTICE OF EDUCATION

(Office, Old Mechanical Building)

ASSOCIATE PROFESSOR LOWDEN

1. PRINCIPLES OF EDUCATION. Three credit hours. First term. *M., W., F., at* 8. Associate Professor LOWDEN.

2. PRINCIPLES AND PRACTICE. Three credit hours. Second term. Time to be arranged. Prerequisite, Course 1. Associate Professor LOWDEN.

3. PRACTICE TEACHING AND CRITICISM. Three credit hours. Third term. 8 *to* 10 daily. Prerequisite, Course 2. Associate Professor LOWDEN.

PSYCHOLOGY

(Office, Room 404, University Hall.)

PROFESSOR MAJOR, PROFESSOR HAINES, PROFESSOR DAVIES

1. GENERAL PSYCHOLOGY. Introductory Course. Three credit hours. First and second terms. *M., W., F., at* 11 *or* 2. Professor MAJOR, Professor HAINES.

*Not given in 1909-1910.

This course, or the equivalent, is required for admission to all other courses in the department of Psychology. Lectures, demonstrations, and recitations. (For third term's work students may elect Philosophy 101, or Psychology 1a.)

1a. ELEMENTARY EXPERIMENTS AND EXERCISES IN PSYCHOLOGY. Three credit hours. Third term. *M., W., F., at* 11 *or* 2. Professor MAJOR, Professor HAINES.

2. EDUCATIONAL PSYCHOLOGY. Two credit hours. Three terms. *M., F., at* 10. Prerequisite, Psychology 1, or equivalent. Professor MAJOR.

3. EXPERIMENTAL PSYCHOLOGY. Three credit hours. Three terms. Lecture, *Tu., at* 1; Laboratory, *Tu.,* 2 *to* 4, and *Th.,* 1 *to* 3. Prerequisite, Psychology 1. Professor HAINES.

*4. MENTAL DEVELOPMENT. Two credit hours. Three terms. Professor MAJOR.

7. ABNORMAL PSYCHOLOGY. Three credit hours. Second and third terms. *M., W., F., at* 1. Prerequisite, Psychology 1. Professor HAINES.

8. ANIMAL PSYCHOLOGY. Three credit hours. First term. *M., W., F., at* 1. Prerequisite, Psychology 1. Professor HAINES.

10. SOCIAL PSYCHOLOGY. Three credit hours. First term. *M., W., F., at* 3. Prerequisite, Psychology 1. Professor HAINES.

11. FOLK PSYCHOLOGY. Three credit hours. Second term. *M., W., F., at* 3. Professor HAINES.

12. THE PSYCHOLOGY OF REASONING. Three credit hours. Third term. *M., W., F., at* 3. Professor HAINES.

14. ADVANCED PSYCHOLOGY. Two credit hours. Three terms. Time to be arranged. Prerequisite, Psychology 1. Professor DAVIES.

16. INDIVIDUAL PSYCHOLOGY. Two credit hours. Three terms. *Tu., Th., at* 2. Professor MAJOR.

20. GENERAL PSYCHOLOGY. Advanced Course. Three credit hours. Three terms. *M., W., F., at* 9. Professor MAJOR.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

31. RESEARCH IN EXPERIMENTAL PSYCHOLOGY. Two credit hours or more. Three terms. Professor HAINES.

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*Not given in 1909-1910.

32. SEMINARY IN PSYCHOLOGY. Two to five credit hours. Three terms. Time to be arranged. Professor MAJOR, Professor HAINES.

33. GRADUATE COURSES IN PSYCHOLOGY. Three to ten credit hours. Three terms. Professor MAJOR, Professor HAINES.

RHETORIC AND ENGLISH LANGUAGE.

(See English.)

ROMANCE LANGUAGES AND LITERATURES.

(Office, Room 305, University Hall.)

PROFESSOR BOWEN, PROFESSOR BRUCE, ASSSOCIATE PROFESSOR INGRAHAM, ASSISTANT PROEFSSOR PEIRCE, MR. EWINGTON, DR. FALORSI.

I. FRENCH.

1. ELEMENTARY FRENCH. Four credit hours. Three terms. Grammar: Thieme and Effinger's, or equivalent. Reader: Aldrich and Foster's, or Bowen's First Scientific. Historical and narrative prose; one or more prose comedies. *M., Tu., Th., F., at* 9, 10, 11, *or* 2; *Tu., W., Th., F., at* 3. All instructors in the department teach one or more sections of this course.

2. MODERN FRENCH LITERATURE. Four credit hours. Three terms. *M., Tu., Th., F., at* 8, 10, *or* 11. Prerequisite, Course 1, or equivalent. Professor BRUCE, Assistant Professor PEIRCE, Mr. EWINGTON.

3. SCIENCE READING. Four credit hours. Third term. *M., Tu., Th., F., at* 10. Prerequisite, course 2, first and second terms. Assistant Professor PEIRCE.

*4. FRENCH COMEDY OF THE SEVENTEENTH CENTURY. Three credit hours. First term. *M., W., F., at* 8 *or* 11. Given biennially, alternating with course 16. Prerequisite, courses 1 and 2. Professor BOWEN, Assistant Professor PEIRCE.

*5. FRENCH TRAGEDY. Three credit hours. Second term. *M., W., F., at* 8 *or* 11. Given biennially, alternating with course 17. Prerequisite, courses 1 and 2. Professor BOWEN, Assistant Professor PEIRCE.

*6. SEVENTEENTH CENTURY PROSE. Three credit hours. Third term. *M., W., F., at* 8 *or* 11. Given biennially, alternating with

*Not given in 1909-1910.

course 18. Prerequisite, courses 1 and 2. Professor BOWEN, Assistant Professor PEIRCE.

7. ADVANCED PROSE COMPOSITION. One credit hour. Three terms. *Tu., at* 8 *or* 11. Prerequisite, courses 1 and 2. Professor BOWEN, Assistant Professor PEIRCE.

*8. PROSE OF THE ROMANTIC PERIOD. Two credit hours. First term. *Tu., Th., at* 9. Given biennially, alternating with course 11. Prerequisite, courses 1 and 2. Professor BRUCE.

*9. RECENT FRENCH PROSE. Two credit hours. Second term. *Tu., Th., at* 9. Given biennially, alternating with course 12. Prerequisite, courses 1 and 2. Professor BRUCE.

*10. PRACTICE IN SPEAKING AND WRITING FRENCH: Based on Daudet's stories. Two credit hours. Third term. *Tu., Th., at* 9. Students wishing to elect this course must have the consent of the instructor in charge. Given biennially, alternating with course 13. Professor BRUCE.

11. FRENCH TRAVEL WRITERS. Two credit hours. First term. *Tu., Th., at* 9. Given biennially, alternating with course 8. Prerequisite, courses 1 and 2. Professor BRUCE.

12. EIGHTEENTH CENTURY PROSE. Two credit hours. Second term. *Tu., Th., at* 9. Given biennially, alternating with course 9. Prerequisite, courses 1 and 2. Professor BRUCE.

13. ADVANCED CONVERSATIONAL PRACTICE: Based on stories of Coppée and Maupassant. Two credit hours. Third term. *Tu., Th., at* 9. Students wishing to elect this course must have the consent of the instructor in charge. Given biennially, alternating with course 10. Professor BRUCE.

*14. FRENCH SEMINARY A. Two credit hours. Three terms. *M.,* 3 *to* 5. Given biennially, alternating with course 15. Prerequisite, courses 1, 2, 4, 5, 6, and 7 or an equivalent. Professor BOWEN.

15. FRENCH SEMINARY B. Two credit hours. Three terms. *M.,* 3 *to* 5. Given biennially, alternating with course 14. Prerequisite, courses 1, 2, 4, 5, 6, and 7, or an equivalent. Professor BOWEN.

16. FRENCH COMEDY OF THE EIGHTEENTH CENTURY. Three credit hours. First term. *M., W., F., at* 8 *or* 11. Given biennially, alternating with course 4. Prerequisite, courses 1 and 2. Professor BOWEN, Assistant Professor PEIRCE.

*Not given in 1909-1910.

17. FRENCH SOCIETY IN THE SEVENTEENTH CENTURY. Three credit hours. Second term. *M., W., F., at* 8 *or* 11. Given biennially, alternating with course 5. Prerequisite, courses 1 and 2. Professor BOWEN, Assistant Professor PEIRCE.

18. PRECURSORS OF FRENCH ROMANTICISM. Three credit hours. Third term. *M., W., F., at* 8 *or* 11. Given biennially, alternating with course 6. Prerequisite, courses 1 and 2. Professor BOWEN, Assistant Professor PEIRCE.

II. ITALIAN.

1. ELEMENTARY ITALIAN. Two credit hours. Three terms. Grammar (Grandgent's or Young's), and Bowen's Italian Reader. Modern prose. Comedy (Goldoni). Time to be arranged. Students are advised to postpone the election of this course until they have completed French 1 or its equivalent. Professor BRUCE.

2. ADVANCED ITALIAN. Two credit hours. Three terms. Manzoni (I Promessi Sposi). Dante (Vita Nuova, Inferno.) With lectures. *M., W., at* 3. Prerequisite, course 1. Professor BRUCE.

III. SPANISH.

1. ELEMENTARY SPANISH. Four credit hours. Three terms. Grammar (Hills and Ford's or Edgren's) and Ingraham's Victoria y Otros Cuentos. Easy prose and plays. Composition and conversation. *M., Tu., Th., F., at* 9, 11, *or* 2. Professor BOWEN, Associate Professor INGRAHAM, Mr. EWINGTON.

2. MODERN SPANISH LITERATURE. Four credit hours. Three terms. *Tu., W., Th., F., at* 3. Prerequisite, course 1, or equivalent. Associate Professor INGRAHAM.

3. CLASSICAL PROSE AND DRAMA. Two credit hours. Three terms. *Tu., Th., at* 2. Prerequisite, courses 1 and 2. Professor BOWEN or Associate Professor INGRAHAM.

FOR GRADUATES ONLY

31. INTRODUCTION TO ROMANCE PHILOLOGY. Two credit hours. Three terms. Time to be arranged. Professor BOWEN.

32. OLD PROVENÇAL. One credit hour. Three terms. Time to be arranged. Professor BOWEN.

33. HISTORY OF THE LITERARY MOVEMENT IN FRANCE IN THE FIRST HALF OF THE NINETEENTH CENTURY. Two credit hours. Three terms. Time to be arranged. Professor BRUCE.

RURAL ECONOMICS

(Townshend Hall)

PROFESSOR PRICE

1. RURAL ECONOMICS. Four credit hours. Third term. Two-year courses in Agriculture and Horticulture. Professor PRICE.

2. FARM MANAGEMENT. Four credit hours. First term. *M., Tu., Th., at* 11; *S.,* 8 *to* 12. Professor PRICE.

4. HISTORY AND LITERATURE OF AGRICULTURE. Four credit hours. Second term. *M., Tu., Th., F., at* 11. Professor PRICE.

6. AGRICULTURAL ECONOMICS. Four credit hours. Third term. *M., Tu., Th., F., at* 11. Professor PRICE.

8. FARM ACCOUNTS AND RECORDS. Two credit hours. First term.

10. RESEARCH WORK FOR GRADUATE STUDENTS. Five to ten credit hours.

SCHOOL ADMINISTRATION

(Office, Room 102, University Hall)

PROFESSOR W. W. BOYD

1. THE ORGANIZATION OF PUBLIC SCHOOLS. Three credit hours. First term. *Tu., W., Th., at* 2.

2. THE ADMINISTRATION OF PUBLIC SCHOOLS. Three credit hours. Second term. *Tu., W., Th., at* 2.

3. THE SUPERVISION OF PUBLIC SCHOOLS. Three credit hours. Third term. *Tu., W., Th., at* 2.

4. SCHOOL HYGIENE AND SANITATION. One credit hour. Three terms. *Th., at* 11.

5. COMPARATIVE SCHOOL ADMINISTRATION. Two to five credit hours. Three terms. Hours to be arranged.

10. THE SECONDARY SCHOOL. Three credit hours. Three terms. *Tu., W., Th., at* 3.

SHOP WORK

(See Industrial Arts)

SOCIOLOGY

(See Economics and Sociology.)

SPANISH

(See Romance Languages.)

VETERINARY MEDICINE
(Veterinary Laboratory)

PROFESSOR WHITE, PROFESSOR SISSON, PROFESSOR MC NEIL, ASSOCIATE PROFESSOR BRUMLEY, ASSOCIATE PROFESSOR PHILLIPS, ASSISTANT PROFESSOR FITZGERALD

11. OSTEOLOGY AND ARTHROLOGY. Seven credit hours. First year, first term.

12. MYOLOGY AND SPLANCHNOLOGY. Ten credit hours. First year, second term.

13. SPLANCHNOLOGY. Ten credit hours. First year, third term.

14. GENERAL PATHOLOGY AND MORBID ANATOMY. Five credit hours. Second year, first term. Associate Professor PHILLIPS.

15. THEORY AND PRACTICE OF VETERINARY MEDICINE. Three credit hours. Second year, second term and third year, second term.

16. THEORY AND PRACTICE OF VETERINARY MEDICINE. Three credit hours. Second year, third term, and third year, third term.

19. MEDICAL AND SURGICAL CLINICS FOR LARGE ANIMALS. One and one-half to three credit hours. Five terms. Professor WHITE, Professor MCNEIL.

21. THEORY AND PRACTICE OF VETERINARY MEDICINE. Three credit hours. Third year, first term.

22. THERAPEUTICS. Three credit hours. Third year, third term. Associate Professor BRUMLEY.

23. OBSTETRICS. Four credit hours. Third year, first term.

25. OPERATIVE SURGERY. Three credit hours. The course consists of practical surgical manipulations performed by students of the third year upon narcotized animals purchased for the purpose.

26. HORSE SHOEING. Three credit hours. Third year, first term. *M., W., F., at* 8. Professor WHITE.

27. MEAT INSPECTION. Three credit hours. Third year, second term. Associate Professor PHILLIPS.

31. CANINE DISEASES. Two and three credit hours. Third year, first, and second terms. Associate Professor BRUMLEY.

33. OPHTHALMOLOGY. Two credit hours. Third year, third term.

34. PATHOLOGY LABORATORY. Three credit hours. Second year, second and third terms. Associate Professor PHILLIPS.

36. PATHOLOGY LABORATORY. Three credit hours. Third year, first term. Associate Professor PHILLIPS.

37. TOPOGRAPHIC ANATOMY. Eight credit hours. Second year, first term.

38. MATERIA MEDICA. Five credit hours. Second year, three terms. Associate Professor BRUMLEY.

41. CANINE SURGERY. Three credit hours. Third year, second term. Three periods each week.

42. PRINCIPLES OF SURGERY AND CLINICAL SURGERY. Four credit hours. Second year, second term.

43. PRINCIPLES OF SURGERY AND CLINICAL SURGERY. Four credit hours. Second year, third term.

44. PRINCIPLES OF SURGERY AND CLINICAL SURGERY. Four credit hours. Third year, second term.

45. PRINCIPLES OF SURGERY AND CLINICAL SURGERY. Four credit hours. Third year, third term.

46. PHARMACY. Two credit hours. Second year, second and third terms. Associate Professor BRUMLEY.

47. PARASITOLOGY. One credit hour. Second year, second and third terms.

48. MEDICAL AND SURGICAL CLINICS FOR SMALL ANIMALS. One and one-half to three credit hours. Five terms. Professor WHITE, and Associate Professor BRUMLEY.

ZOOLOGY AND ENTOMOLOGY

(Office, Room 1, Biological Hall.)

PROFESSOR OSBORN, PROFESSOR LANDACRE, ASSOCIATE PROFESSOR HINE, MR. H. P. SEVERIN, MR. H. C. SEVERIN, MISS HOLLISTER

1. INVERTEBRATE AND VERTEBRATE. Three credit hours. Invertebrate, first and second terms; Vertebrate, third term. *Tu., Th., at* 8 *or* 9, *or M., F., at* 9 *or* 10; *M., Tu., W., Th. or F.,* 1 *to* 3; *W.,* 8 *to* 10. Professor OSBORN, Professor LANDACRE, Mr. SEVERIN.

31. ELEMENTARY ZOOLOGY. Three credit hours. Three terms. Time same as course 1. Professor OSBORN, Professor LANDACRE.

2. COMPARATIVE ANATOMY OF VERTEBRATES. Three to five credit hours. Three terms. Quiz, *W., at* 1; laboratory, time to be arranged. Prerequisite, course 1, or equivalent. Professor LANDACRE.

3. ECONOMIC ENTOMOLOGY. Three credit hours. Third term. Lecture, *Tu., Th., at* 11; laboratory, *F.,* 1 *to* 3. Prerequisite, Course 4. Associate Professor HINE.

4. ECONOMIC ENTOMOLOGY. Three credit hours. Three terms. Lecture, *Tu., Th., at* 8; laboratory, *Tu., Th., or S.,* 9 *to* 11. Prerequisite. Course 1. Associate Professor HINE.

7. SYSTEMATIC AND PRACTICAL ENTOMOLOGY. Three credit hours. Elective in short course in Agriculture, first, second, and third terms; short Horticulture, first year. Lectures, *M., W., F., at* 8; laboratory, *M.,* 1 *to* 4. Associate Professor HINE.

*8. PARASITES OF DOMESTIC ANIMALS. One credit hour. First term. Elective. Time to be arranged. Professor OSBORN.

9. SPECIAL ENTOMOLOGY. Four credit hours. First term. Elective in Junior or Senior year. Lecture, *M., W., at* 3; laboratory, time to be arranged. Professor OSBORN.

10. SPECIAL ENTOMOLOGY. Four credit hours. Second term. Elective in Junior or Senior year. Lecture, *M., W., at* 3; laboratory, time to be arranged. Professor OSBORN.

11. SPECIAL ENTOMOLOGY. Four credit hours. Third term. Elective in Junior or Senior year. Lecture, *M., W., at* 3; laboratory, time to be arranged. Professor OSBORN.

12. GROSS ANATOMY OF THE FROG. Three to five credit hours. First term. Time to be arranged. Prerequisite, course 1. Professor LANDACRE.

13. MINUTE ANATOMY OF THE FROG. Three to five credit hours. Second term. Time to be arranged. Prerequisite, course 1. Professor LANDACRE.

14. EMBRYOLOGY OF THE FROG. Three to five credit hours. Second term. Time to be arranged. Prerequisite, course 1. Professor LANDACRE.

15, 16, 17. INVERTEBRATE MORPHOLOGY. Three to five credit hours. Three terms. Time to be arranged. Prerequisite, course 1. Professor OSBORN.

*18. INVERTEBRATE EMBRYOLOGY. Three to five credit hours. Three terms. Laboratory. Time to be arranged. For graduates. Prerequisite, courses 1 and 2. Professor OSBORN.

19. VERTEBRATE EMBRYOLOGY. Karyokinesis, etc. Three to five credit hours. First term. Lecture, *Th., at* 1; laboratory, *Th., F.,* 1 *to* 4. Prerequisite, course 1. Professor LANDACRE.

20. VERTEBRATE EMBRYOLOGY: Chick and Mammal. Three to five credit hours. Second and third terms. Lecture, *Th., at* 1; lab-

*Not given in 1909-1910.

oratory, *Th., F.*, 1 *to* 4. Prerequisite, courses 1 and 19. Professor LANDACRE.

28. EMBRYOLOGY. Three credit hours. Third term. Professor LANDACRE.

FOR ADVANCED UNDERGRADUATES AND GRADUATES.

34. EVOLUTION. Three credit hours. Three terms. Prerequisite, one year of zoology or equivalent. *M., W., F., at* 8. Professor OSBORN, Professor LANDACRE.

*21. COMPARATIVE NEUROLOGY. Three to five credit hours. Three terms. Time to be arranged. Prerequisite, course 1, or equivalent, but is open to advanced students in psychology and pedagogy. Professor LANDACRE.

22. CYTOLOGY. Three to five credit hours. Three terms. Time to be arranged. Prerequisite, course 31, and equivalent of 2, or 15, 16, 17. Professor LANDACRE.

23. ENTOMOLOGY. Three to five credit hours. Three terms. Time to be arranged. Prerequisite, course 1. Professor OSBORN.

24. ORNITHOLOGY. Two credit hours. Three terms. Lecture, *M., at* 10. Laboratory, to be arranged. Associate Professor HINE.

25. RESEARCH WORK. Five to ten credit hours. Three terms. Prerequisite, course 1, and the equivalent of 2, or 15, 16, 17, or 19, 20. Professors OSBORN and LANDACRE.

26. SEMINARY. One credit hour. Three terms. *Th., at* 4. Professor OSBORN, Professor LANDACRE.

27. TEACHERS' COURSE. Two or three credit hours. Three terms. Professor OSBORN, Professor LANDACRE.

FOR GRADUATES ONLY

30. INVERTEBRATE ZOOLOGY. Five credit hours. Time to be arranged. Professor OSBORN.

33. VERTEBRATE EMBRYOLOGY. Three to five credit hours. Study of Karyokinesis, Germ layers, org nogeny, etc. For graduates only. Professor LANDACRE.

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* Not given in 1909-1910.

REGISTER OF STUDENTS

1908-1909

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE

GRADUATE STUDENTS

Name	*Home Address*
BEAR, FIRMAN EDWARD, B. Sc. (Agr.)	Germantown
CHISHOLM, JOHN	Antigonish, Nova Scotia
COLLISON, REGINALD CLIFTON, B. Sc. (Agr.)	Columbus
COLLISON, STANLEY EDGAR, B. S. (Agr.)	Columbus
HARTMAN, SCOTT CLIFFORD, B. Sc. (Agr.)	North Fairfield
SHIELDS, RICHMOND LEE, B. Sc. (Agr.)	Watkins
SMITH, CLARA ORTON, B. Sc. (Dom. Sci.)	Valley Crossing
VAUGHAN, HENRY WILLIAM, B. Sc. (Agr.)	Columbus
WRIGHT, ROBERT CLAUDE, B. Sc. (Agr.)	Columbus

UNDERGRADUATES

Name	*Course*	*Rank*	*Home Address*
Agler, Adelbert McMillen,	H.& F.	Sophomore	Columbus
Albyn, Herbert A.,	Agr.	Special	Dayton
Allen, Harry Earle,	Agr.	Senior	Van Wert
Allen, Katharine Dean,	Dom. Sci.	Sophomore	Troy
Andrews, Fay M.,	Agr.	Special	Columbus
Anspon, Berthold W.,	H. & F.	Junior	Dayton
Arms, Helen,	Dom. Sci.	Sophomore	Columbus
Arter, Charles,	Agr. S.	Second	Upper Sandusky
Bachtell, Myron A.,	Agr.	Sophomore	Medina
Ballmer, Clarence E.,	Agr. S.	First	Canal Winchester
Barkman, John O.,	Agr.	Freshman	Osborne
Barnes, Paul Williamson,	Agr.	Sophomore	Sandusky
Barnitz, Marie Anette,	Dom. Sci.	Freshman	Columbus
Barr, Frances Mary,	Dom. Sci.	Special	Croton
Barr, Ralph Lester,	H. & F.	Special	Lancaster
Barrington, Louis,	Agr.	Freshman	St. Marys
Bates, Herbert Bonnett,	Agr. S.	First	New Berlin
Batterson, Robert Marshall,	Agr. S.	First	Columbus
Beck, Franklin Blacque,	Agr. S.	First	Tiffin
Belden, Lucy Phoebe,	Dom. Sci.	Senior	Middlefield
Bell, Arthur Marlin,	Agr.	Freshman	Utica
Bell, John M.,	Agr.	Freshman	Cumberland
Bennage, Elvin Wesley,	Agr.	Senior	Bath
Benton, Earl Wingfield,	Agr. S.	First	Columbus
Billman, Lulu Florence	Dom. Sci.	Sophomore	Dayton
Bishop, Jacob Edson,	H. & F.	Freshman	Canal Winchester
Blaine, Ernest Deming,	Agr.	Freshman	Mt. Sterling
Blake, Rosalia Ella,	Dom. Sci.	Freshman	Boulder, Col.

Name	*Course*	*Rank*	*Home Address*
Blakeslee, Elihu Burritt,	H. & F.	Senior	Sandusky
Blohm, Anna Frances,	Dom. Sci.	Senior	Marietta
Boltz, George E.,	Agr.	Sophomore	Stone Creek
Boner, Ada Lucile,	Dom. Sci.	Freshman	Columbus
Bonnet, Morton Matthias,	H & F.	Freshman	Columbus
Bosworth, Geraldine,	Dom. Sci.	Freshman	Cleveland
Boving, Louis Walter,	Agr.	Freshman	Carroll
Bratton, Harvey George,	Agr. S.	First	Brecksville
Brigham, Reed O.,	H. & F.	Freshman	Toledo
Brittain, Mary C.,	Dom. Sci.	Junior	Delaware
Brookley, Arthur Clifford,	Agr.	Freshman	West Alexandria
Brown, Cecil Frank,	Agr. S.	First	Slippery Rock, Penn.
Brown, Mary Elizabeth,	Dom. Sci.	Freshman	Columbus
Brubaker, Everett,	H. & F., S.	First	West Alexandria
Bruce, William French,	Agr.	Sophomore	Delta
Bull, Sleeter,	Agr.	Special	Sidney
Cadwallader, John,	Agr.	Junior	Gano
Call, Howard M.,	Agr.	Sophomore	Kent
Cameron, Hazel Crabill,	Dom. Sci.	Freshman	Columbus
Campbell, Celia Thaxter,	Dom. Sci.	Freshman	Harrison
Campbell, James Wiley,	H. & F.	Freshman	Atlanta
Carr, Raymond M.,	Agr.	Freshman	Bellefontaine
Carroll, Alice Berry,	Dom. Sci.	Freshman	Columbus
Carson, Elba Asbury,	Agr.	Special	East Monroe
Chaffee, Abner Vernon,	H. F. & S.	First	Columbus
Chakrabarti, Nagen,	Agr.	Sophomore	Calcutta, India,
Cherington, Warren Josephus,	Agr. S.	First	Columbus
Christensen, Walter Emil,	H. & F. S.	First	Brooklyn
Clemmer, Richard Hogshead,	Agr.	Special	Middlebrook, Va.
Clevenger, Clinton B.,	Agr.	Freshman	Sidney
Clum, W. Ray,	Agr.	Junior	Thornville
Comstock, Edith Wilson,	Dom. Sci.	Junior	Dayton
Cott, Myrna,	Dom. Sci. S.	Special	Columbus
Courtright, Virgil L.,	Agr.	Freshman	Stoutsville
Co Van, Alice,	Dom. Sci. S.	Second	Columbus
Cowgill, Frederick Morton,	Agr. S.	First	Barnesville
Cox, Joseph Frank,	Agr.	Freshman	Madisonville
Crane, Alice,	Dom. Sci.	Sophomore	Columbus
Creamer, Catharine Corinne,	Dom. Sci.	Freshman	Osborne
Cross, Jessie F.,	Dom. Sci.	Senior	Racine
Darst, Holden,	Agr.	Junior	Covington
Dass, Rajani Kanta,	Agr.	Sophomore	Daeca, India
Davidson, Marguerite,	Dom. Sci.	Freshman	Columbus
Davis, Stuart.	H. & F.	Freshman	Madisonville

Name	*Course*	*Rank*	*Home Address*
DePue, Chalmers Webster,	H. & F.	Senior	Columbus
Detrick, Marion Franklin,	Agr.	Freshman	Bellefontaine
DeWolfe, Findley H.,	Agr.	Sophomore	Pataskala
Dickinson, Grant Frey,	Agr. S.	First	Bellefontaine
Dike, Clyde Evert,	Agr.	Freshman	Chesterhill
Dillitush, William Henry,	Agr.	Senior	Lebanon
Dill, Oliver Peter,	Agr.	Freshman	Monclova
Dimity, Walter H.,	Agr. S.	First	Chillicothe
Ditrick, Vaughn Bayard,	Agr.	Freshman	Orient
Dix, George A.,	Agr. S.	Second	Delaware
Dobbs, Wallace,	Agr.	Freshman	Windham
Dornbusch, Louise,	Dom. Sci.	Junior	Dayton
DuBrul, Clarence Joseph,	Agr. S.	First	Cincinnati
DuBrul, Tilford Alphonse,	Agr. S.	First	Cincinnati
Dunkle, Amos Jacob,	Agr. S.	First	Circleville
Dunlap, Robert L.,	Agr.	Freshman	Chillicothe
Durrell, Laurence Wood,	Agr.	Freshman	Norwood
Dutton, Walter Curtis,	H. & F. S.	First	Hockingport
Eager, Bessie Lenore,	Dom. Sci.	Freshman	Idaho
Earl, Jessie,	Dom. Sci.	Sophomore	Columbus
Ebright, Melville Clark,	Agr. S.	Second	Shreve
Ecker, Frances Mae,	Dom. Sci.	Sophomore	Gallipolis
Eckmann, Emil Clarence,	Agr.	Senior	Columbus
Edmonds, Mary Elizabeth,	Dom. Sci.	Junior	Mansfield
Elser, Wilbur Lester,	Agr.	Senior	Galion
Engle, Chester C.,	Agr.	Freshman	Dayton
Ensign, Marshall Julius,	Agr.	Freshman	Jamestown
Evans, Harry,	Agr.	Senior	West Liberty
Everett, Helen Elizabeth,	Dom. Sci	Freshman	Columbus
Ewing, Perry Van,	Agr.	Sophomore	Centerville
Fagan, Frank N.,	H. & F. S.	Second	Tedrow
Falknor, Eva,	Dom. Sci.	Freshman	Dayton
Faxon, Richard,	Agr.	Junior	Elyria
Faxon, Robert B.,	H. & F.	Freshman	Elyria
Fieldner, Carl George,	Agr.	Freshman	Ney
Flory, Leola Bernice,	Dom. Sci.	Freshman	Arcanum
Freeman, Frances,	Dom. Sci.	Junior	Tippecanoe City
Freeman, Roy Wilkes,	Agr.	Freshman	Phoneton
Frye, Roy R.,	Agr.	Freshman	Dennison
Gamble, Walter Wood,	Agr.	Sophomore	Paulding
Garhart, Madge Estella,	Dom. Sci.	Sophomore	Columbus
Garvin, Alma L.,	Dom. Sci.	Sophomore	Cambridge City, Ind.
Gaston, Lura Belle,	Dom. Sci.	Freshman	Columbus
George, Clayton Ray,	Agr.	Freshman	Okeana
George, John Gilbert,	Agr.	Sophomore	Vendocia
George, Robert Dorrance,	Agr. S.	First	Hammondsville
Gerlaugh, Ella,	Dom. Sci.	Sophomore	Osborne

Name	*Course*	*Rank*	*Home Address*
Gerlaugh, Paul,	Agr.	Freshman	Osborne
Greenwood, Georgene Winifred,	Dom Sci.	Junior	Columbus
Gromme, Henrietta,	Dom. Sci.	Freshman	Lancaster
Guard, Samuel Reuben,	Agr.	Freshman	Elizabethtown
Guion, Eula May,	Dom. Sci.	Freshman	Dayton
Halter, Helen Marie,	Dom. Sci.	Freshman	Mansfield
Hanger, Wallace Edwin,	Agr.	Freshman	Somerville
Hanna, Wilson,	Agr. S.	First	Cedarville
Harbage, Raymond R.,	Agr.	Freshman	West Jefferson
Harbage, Robert S.,	Agr.	Sophomore	West Jefferson
Harbarger, Lelia Merle,	Dom. Sci.	Senior	Columbus
Harris, Harold Goering,	Agr. Sci.	Second	Bellefontaine
Hart, Lotta,	Dom. Sci.	Special	Columbus
Hart, Stanley S.,	Agr.	Senior	West Alexandria
Haughton, Edna M.,	Dom. Sci.	Junior	Columbus
Haupert, Gertrude Alberta,	Dom. Sci.	Freshman	Wapakoneta
Hayes, Glenn Garlough,	Agr.	Freshman	Springfield
Hedge, James Clay,	Agr.	Freshman	Caldwell
Heller, Lewis Lincoln,	Agr. S.	First	Marietta
Hendrix, Byron Murray,	Agr.	Senior	Lewisburg
Hendrix, Wilbur Jordon,	Agr.	Junior	Lewisburg
Henry, Harry Glen,	Agr. S.	First	Amesville
Hershberger, Joseph Peter, Jr.,	Agr.	Freshman	Lancaster
Hervey, John D.,	Agr. S.	Second	Jefferson
Hill, Hazel	Dom. Sci.	Freshman	Columbus
Hoddy, Emmett Jackson,	Agr.	Senior	Columbus
Holdson, Walter,	Agr.	Freshman	Jefferson
Hood, George William,	H. & F.	Junior	Columbus
Howard, Mrs. Anne Richardson,	Dom. Sci.	Special	Columbus
Hoyt, Harley C.,	Agr.	Freshman	North Fairfield
Hoyt, Leslie J.,	Agr.	Freshman	Hillsboro
Hugus, Ray Berlin,	H. & F.	Freshman	Columbus
Hundertmark, Roy Eduard,	Agr.	Senior	Geneva
Hurst, Earle Rathbourn,	Agr.	Sophomore	Good Hope
Huston. Florence Eva,	Dom Sci.	Sophomore	Mt. Healthy
Hutchinson, John Barclay,	Agr. S.	First	Freeport
Hyatt, Harry C.,	H. & F.	Sophomore	Cleveland
Jamison, Orville A.,	Agr.	Freshman	Newark
Janes, Frank L.,	Agr.	Junior	Jeffersonville
Janeway, William Ralph,	H. & F.	Special	Columbus
Jasin, Louis,	Agr. S.	First	Cincinnati
Jefferson, Elizabeth,	Dom. Sci.	Senior	Danville
Jenkins, Edward Mahlon,	Agr.	Sophomore	Winona
Johnston, Orie Marie,	Dom. Sci.	Sophomore	Grove City
Jones, Earl,	Agr.	Freshman	Granville
Jones, Lulu,	Dom. Sci.	Freshman	Cardington

Name	*Course*	*Rank*	*Home Address*
Jones, Thomas A.,	Agr. S.	Second	Radnor
Kampf, William Frederick,	Agr. S.	Second	Rome
Katz, Etta May,	Dom. Sci.	Freshman	Marion
Kauffman, Treva E.,	Dom. Sci.	Sophomore	Osborne
Keil, Clara Isabella,	Dom. Sci.	Freshman	Oxford
Keil, Joseph Benjamin,	Agr. S.	Second	Marion
Keller, Laura Edith,	Dom. Sci.	Sophomore	Zanesville
Kelley, Roy Wilbur,	Agr.	Freshman	Hillsboro
Kenney, Agnes,	Dom. Sci.	Freshman	Marengo
Kern, Lillian Marguerite,	Dom. Sci.	Freshman	Columbus
Kidwell, Amy Lee,	Dom. Sci.	Junior	Mt. Sterling
Kinkead, Robert Benton,	Agr.	Junior	Columbus
Krohn, Charles B.,	Agr. S.	Special	Grelton
Landis, George Albert,	Agr.	Freshman	Covington
Lawrence, Paul Clifford,	Agr. S.	First	Marion
Lehman, Leonard Calvin,	Agr.	Freshman	Versailles
Leonard, Lena Hattie,	Dom. Sci.	Freshman	N. Pomfret, Vt.
Lewis, Mayme.	Dom. Sci.	Freshman	Grove City
Lied, May Eva,	Dom. Sci. S.	Second	Columbus
Linebaugh, Harry,	Agr.	Sophomore	Grove City
Linn, Edward Roy,	H. & F.	Sophomore	Columbus
Livingston, George,	Agr.	Senior	Ansonia
Lockheart, Aaron,	Agr. S.	Second	Bellville
Long, Grover Cleveland,	Agr.	Senior	Cardington
Lucas, Marian Curtis,	Dom. Sci.	Senior	Columbus
Luginbill, Philip,	Agr.	Junior	Columbus Grove
Lytle, John LaMaje,	Agr. S.	First	Columbus
McBride, Thomas Fairfield,	Agr. S.	First	Mansfield
McClelland, Heber Bacon,	Agr.	Sophomore	Cumberland
McConnell, William R..	Agr. S.	First	Rittman
McCoy, Walter Eli,	Agr.	Freshman	Washington, C. H.
McCray, Arthur Howard,	H. & F.	Senior	Duvall
McCreery, Lew Wallace,	Agr.	Freshman	Brecksville
McDowell, Thomas Corwin,	Agr. S.	First	Canton
McFarland, Frank Theodore,	Agr.	Special	Sunbury
McKee, James Albert,	Agr.	Senior	Portsmouth
McKinney, Alta,	Dom. Sci.	Freshman	Elizabethtown
McLain, Daniel Clark,	Agr. S.	First	Hammondsville
McLaughlin, Thomas Edwin,	Agr.	Sophomore	Columbus
McLellan, Marie Fansher,	Dom. Sci.	Sophomore	Columbus
McRitchie, Kenneth D.,	Agr.	Freshman	Port Clinton
Makepeace, Lillian,	Dom. Sci.	Junior	Columbus
Mallon, Guy Sivyer,	Agr. S.	First	Hamilton
Maris, Isabel Fletcher,	Dom. Sci.	Sophomore	Columbus
Marsh, Harry A.,	Agr.	Sophomore	Amlin
Martin, Clare,	H. & F.	Sophomore	New Castle, Ind,

Name	*Course*	*Rank*	*Home Address*
Matthews, Josephine,	Dom. Sci.	Freshman	Centerburg
Mayferth, Albert William,	Agr. S.	First	Winesburg
Mead, Clarence S.,	Agr. S.	Second	Greenwich
Melchers, Leo Edward,	H. & F., S.	First	Toledo
Mendenhall, Carlos H.,	Agr. S.	First	Sharpsburg
Menefee, Augusta I.,	Dom. Sci.	Freshman	Columbus
Messier, Jennie,	Dom. Sci. S.	Second	Columbus
Michel, Frances Sarah,	Dom. Sci.	Sophomore	Columbus
Mickle, Edward Harrison,	Agr.	Sophomore	Springfield
Millar, Earl William,	Agr.	Freshman	Ashville
Miller, Arthur Stanley,	Agr.	Freshman	Thurston
Miller, Marie Louise,	Dom. Sci.	Sophomore	Columbus
Miller, Pearl S.,	Agr.	Freshman	Columbus
Miskimen, Mabel,	Dom. Sci.	Senior	Newcomerstown
Moats, Lloyd W.,	H. & F. S.	First	Berlin Heights
Moore, Alice Marguerite,	Dom. Sci.	Freshman	Columbus
Moore, Guy,	H. & F.	Freshman	Columbus
Moore, Melbourn D.,	Agr.	Senior	Salem
Morris, Anna,	Dom. Sci.	Freshman	Columbus
Morrow, Vance R.,	Agr. S.	First	Steubenville
Mote, Don Carlos,	Agr.	Sophomore	Greenville
Mowls, Leward L.	Agr.	Junior	Waynesburg
Mundhenk, Guy H.,	Agr.	Freshman	Brookville
Munger, John H.,	Agr.	Special	Xenia
Neil, Fay, B. A.,	Dom. Sci.	Special	Columbus
Nesbitt, Morris,	Agr. S.	First	Grafton
Nichols, Mark Lovel	Agr.	Freshman	Bellevue
Noble, Grace,	Dom. Sci.	Special	Columbus
Noble, Philip Edgar,	Agr. S.	Second	North Royalton
Nuetzel, Otto P.,	Agr.	Freshman	Marysville
Nuzum, Leila Beatrice,	Dom. Sci.	Freshman	Columbus
Oaks, Albert C.,	Agr.	Freshman	Union
Olson, Gladys Anna,	Dom. Sci.	Freshman	Sandusky
Osborn. Charles R.,	Agr.	Freshman	Grafton
Oyler, Leigh Marsh,	Agr.	Junior	Okeana
Page, Arthur Ray,	Agr.	Sophomore	Dennison
Page, Elsa Pearl,	Dom. Sci.	Freshman	Felicity
Parks, Thaddeus Hedges,	Agr.	Senior	Ashville
Patton, Anna Evelyn,	Dom. Sci.	Special	Columbus
Patton, Edith Carolyn	Dom. Sci.	Freshman	Columbus
Peebles, Robert Pollock,	Agr. S.	First	New Castle, Pa.
Penisten, Edwin H.,	Agr.	Sophomore	Chillicothe
Petry, Bertha Louise,	Dom. Sci.	Sophomore	Uhrichsville
Pflueger, Otto W.,	H. & F.	Sophomore	Carey
Phillips, Ely Elwood,	Agr. S.	First	Barnesville
Phillips, Thomas D.,	Agr.	Third	Columbus
Phillips, Thomas Guthrie,	Agr.	Freshman	Kingsville
Pickering, Harold Hoyt,	H. & F.	Freshman	Columbus
Pitkin, Ava Vesta,	Dom. Sci.	Senior	Galion
Pitkin, Ruby Louise,	Dom. Sci.	Junior	Galion
Place, Virgil Augustus,	Agr. S.	First	Hume

Name	*Course*	*Rank*	*Home Address*
Plumb, Helen Gladwin,	Dom. Sci.	Senior	Columbus
Pollock, Otho Harper,	Agr.	Freshman	Delaware
Poore, Ward Smith,	Agr.	Freshman	Columbus
Portz, Grover Cleveland,	Agr.	Sophomore	Newcomerstown
Postle, Ralph Aylsworth,	Agr.	Sophomore	Camp Chase
Postle, Ruth Ella, B. A.,	Dom. Sci.	Senior	Columbus
Potts, James Elwood,	Agr. S.	First	Columbus
Preston, Earl Israel,	Agr.	Freshman	Columbus
Pritchard, Edward H.,	H. & F.	Freshman	Columbus
Rannells, Thomas Errett,	Agr. S.	First	Wilmington
Reagin, Orville Waters,	Agr.	Junior	Forney, Texas
Reed, Ernest Evans,	Agr.	Freshman	Dennison
Richards, Elva,	Dom. Sci.	Sophomore	Columbus
Richardson, Charles Morill,	Agr.	Junior	Willoughby
Rinehart, Frank Edward,	Agr.	Junior	Eaton
Risser, Edwin Alvin,	Agr.	Senior	Pandora
Rivera, Antonio,	Agr.	Sophomore	Catamarca, A. R.
Roberts, Esther A.,	Dom. Sci.	Sophomore	Columbus
Roberts, Frank Ewing,	Agr. S.	First	Columbus
Roberts, Merritt E.,	Agr. S.	First	South Charleston
Rogers, John McDonald,	Agr.	Freshman	Madisonville
Rouse, Thomas A.,	Agr. S.	First	Crittenden, Ky.
Runkle, Olive Leota,	Dom. Sci.	Sophomore	Ashville
Ruth, Eugene,	Agr.	Sophomore	Sandusky
Ryan, Julia Eveleth,	Dom. Sci.	Special	Columbus
Salisbury, Benjamin F.,	Agr.	Freshman	North Olmsted
Salt, Sara Loretta,	Dom. Sci.	Freshman	Columbus
Sands, Forrest Eveleen,	Dom. Sci.	Sophomore	Milan
Sauer, Dora,	Dom. Sci.	Freshman	Columbus
Saunders, Ada Florence,	Dom. Sci.	Freshman	Westerville
Schaal, Wilbert,	Agr. S.	Second	Flushing
Schanfarber, Rosaline,	Dom. Sci.	Senior	Columbus
Schermerhorn, John H.,	Agr. S.	First	Brimfield, Ind.
Schlupp, Francis,	Agr.	Freshman	Newcomerstown
Scott, Heber Ray,	Agr. S.	Second	Shandon
Scott Leonard Leonidas,	Agr.	Senior	West Liberty
Scott, Lewis Hale,	Agr. S.	First	Alexandria
Sharpe, Florence Lydia,	Dom. Sci.	Freshman	Columbus
Shaw, Florence,	Dom. Sci.	Freshman	Dayton
Sheets, Grace,	Dom. Sci.	Second	Columbus
Sheets, Olive Amy, B. A.,	Dom. Sci.	Special	Columbus
Sheldon, Ella Eliza,	Dom. Sci.	Special	Grafton
Sherman, Lewis Walter,	H. & F.	Junior	Bellevue
Shilling, Alice Myrtle,	Dom. Sci.	Sophomore	Columbus
Shilling, Ida May,	Dom. Sci.	Junior	Troy
Shilts, Walter, Jay	Agr.	Freshman	Wooster
Sidle, Benjamin Harrison,	Agr. S.	First	Wooster
Simmons, George Edward,	Agr.	Senior	East Monroe
Simon, Ralph Burl,	Agr.	Freshman	Continental

Name	*Course*	*Rank*	*Home Address*
Simons, Horace,	Agr. S.	First	Columbus
Sinclair, Hannah Alys,	Dom. Sci.	Freshman	Columbus
Slate, William Le Roy, Jr.,	Agr.	Senior	Sandusky
Sloan, Besse Belle,	Dom. Sci.	Freshman	Columbus
Smiley, Ethel May,	Dom. Sci.	Freshman	Columbus
Smith, Clara,	Dom. Sci.	Sophomore	West Unity
Smith, Elma,	Dom. Sci.	Junior	Bethel
Smith, Leonard J.,	Agr.	Freshman	Germantown
Smith, Ruby Winifred,	Dom. Sci.	Freshman	Woodstock
Smith, Verle Cleveland,	Agr.	Freshman	Basil
Smith, Wilson W.,	Agr.	Special	Loveland
Smythe, Malcolm,	H. & F.	Freshman	Columbus
Snyder, Charles Edwin,	Agr.	Senior	Monroeville
Snyder, Dean M.,	Agr.	Freshman	Woodsfield
Solether, Clell,	Agr.	Freshman	Jerry City
Steele, Alice Lolita,	Dom. Sci.	Freshman	Columbus
Stewart, Edgar,	Agr. S.	First	Cambridge
Stiffey, Mabel Rebecca,	Dom. Sci.	Freshman	Columbus
Stillwell, Bettina,	Dom. Sci. S.	Second	Claremore, Okla.
Stoltz, Mabelle,	Dom. Sci.	Sophomore	Gettysburg
Stoltz, Robert Bear,	Agr.	Freshman	Covington
Story, George F. Edmonds,	Agr.	Special	Essex Junction, Vt.
Strong, Chester Sherman,	Agr. S	First	McConnelsville
Suter, Elam,	Agr. S.	First	Pandora
Swain, Elizabeth	Dom. Sci.	Special	Columbus
Swanger, Glen,	Agr.	Freshman	Apple Creek
Tanner, Wilda,	Dom. Sci.	Special	Columbus
Taylor, Joseph Arthur,	Agr.	Freshman	Peoli
Terrell, Charles Clayton, B. S.,	Agr.	Junior	New Vienna
Tharp, John James,	Agr.	Freshman	Lyndon
Thomas, Charles Ortton,	Agr. S.	First	Chesterhill
Thompson, Homer Columbus,	H. & F.	Junior	Woodfield, Md.
Thompson, Nelle,	Dom. Sci.	Freshman	Coshocton
Thomson, Allan Ewens	Agr. S.	First	Hamilton
Thum, Florence A.,	Dom. Sci.	Freshman	Eaton
Tuller, Emily Butler,	Dom. Sci.	Sophomore	Columbus
Turner, Adolphus Arthur,	Agr.	Freshman	Hackley, Ky.
Vanatta, Ray D.,	Agr.	Sophomore	Marysville
Van Gundia, Gordon Keller,	H. & F.	Freshman	Sycamore
Van Houten, William James,	H. & F. S.	First	Cincinnati
Van Sickle, Inez Estelle,	Dom. Sci.	Junior	Columbus
Walker, Albert Omer,	Agr. S.	First	Grafton, N. H.
Walker, James F.,	Agr.	Freshman	Flushing
Walker, Ralph Reed,	Agr. S.	Special	Williamsburg
Watts, Herbert R.,	H. & F.	Junior	Columbus

Name	*Course*	*Rank*	*Home Address*
Weaver, Mary Angie,	Dom. Sci.	Freshman	Columbus
Weininger, Welsh Warren,	Agr. S.	First	McCutchenville
Wellman, Arthur George,	Agr.	Special	New Knoxville
Wells, Asa M.,	Agr. S.	First	Amesville
White, Robert Marvyn,	Agr.	Freshman	Lebanon
White, Roy Smith,	Agr.	Freshman	Derby
Wikoff, Garnett Merrill,	H. & F.	Freshman	Columbus
Wilber, Robert Marshall,	Agr.	Senior	Marysville
Wilcox, Albert Stevenson,	Agr.	Sophomore	Cleveland
Wildermuth, Anna Ruth,	Dom. Sci.	Freshman	Groveport
Wildermuth, Vernon L.,	Agr.	Senior	Groveport
Wiley, Edith Klayer,	Dom. Sci.	Freshman	Carthage
Williams, Guy Maxwell,	Agr. S.	First	Sharonville
Williams, John Franklin,	Agr. S.	First	Osborne
Wolf, George Clayton,	Agr.	Freshman	Campbellstown
Worman, George Mozart,	Agr.	Freshman	Brookville
Wright, Erskine Clark,	Agr.	Sophomore	Columbus
Wright, Laurence Good,	Agr.	Sophomore	New Vienna
Yagi, Juntoku,	Agr.	Special	Takatsuki, Japan
Young, Davis Edward,	Agr. S.	First	Wickliffe
Zeller, Helen Rose,	Dom. Sci.	Freshman	Findlay
Zeller, Ray E.,	Agr.	Freshman	Swanton
Zimmer, James Francis,	H. & F.	Senior	Shepard
Zimmerman. Ernest Hess,	Agr. S.	Second	Marshallville

COLLEGE OF ARTS, PHILOSOPHY, AND SCIENCE

GRADUATE SCHOOL

Name — *Home Address*

BARNES, ALFRED HENRY, M. E. ..... Sandusky
Major—Physics.
Minor—Chemistry.

BECK, EDWIN LONG, B. A. ..... Lithopolis
Major—English.
Minor—Education.

BELL, FLORENCE LOUISE, B. Ph. ..... Columbus
Major—English.
Minor—French.

BLAIR, KATE RUTH, B. A. (Ohio Wesleyan Univ.) ..... Wilmington
Major—
Minor—Bacteriology.

BOORD, CECIL ERNEST, A. B. (Wabash College) ... Veedersburg, Ind.
Major—Chemistry.
Minor—Physics.

BRYANT, DAVID CLIFTON, B. A. ..... Columbus
Major—American History.
Minor—Economics.

CAMPBELL, EVA MARIA, B. A. ..... Centerville
Major—Latin.
Minor—Greek.

Name — *Home Address*

CLAYPOOLE, CHARLOTTE, B. Ph.....Columbus
Major—English.
Minor—Italian.

COVERT, FLORENCE CECILIA, B. A.....Columbus
Major—Sociology.
Minor—English.

DUNCAN, CARSON SAMUEL, B. A. (Wabash College), M. A. (Columbia) .....Columbus
Major—English.

DURRANT, EDWIN POE, A. B. (Otterbein Univ.), M. A...Westerville
Major—Geology.

EISENBEIS, BERTHA WEBB, B. Ph.....Columbus
Major—
Minor—English.

GATEWOOD, B. A.....Clintonville
Major—Physiology.
Minor—Pharmacy.

GATEWOOD, LEE CONNEL, B. A.....Clintonville
Major—Physiology.
Minor—Bacteriology.

GROSVENOR, FRED BROWNE, B. A.....Troy
Major—Bacteriology.
Minor—Pharmacy.

HAMBLETON, JAMES CHASE, A. B. (Macalester College), M. A. .....Columbus
Major—Zoology.
Minor—Botany.

HINDMAN, SAMUEL, A. B. (Geneva College).....Columbus
Major—Bacteriology.
Minor—Veterinary Medicine.

HOLLISTER, EMILY CONSTANCE, B. A.....Galion
Major—Zoology.
Minor—Botany.

HOOVER, ETHEL MAY, B. A..... .....Grove City
Major—English.
Minor—Italian.

HUTSINPILLAR, JESSIE, B. A. (Wellesley College).....Ironton
Major—English.
Minor—Psychology.

KELLOGG, DAVID RAYMOND, B. S. (Rhode Island College)..... New London, Conn.
Major—Chemistry.
Minor—Physics.

KOEHNE, MARTHA, B. A.....Columbus
Major—Chemistry.
Minor—German.

LANTIS LEE ORA, A. B. (Miami University).....Columbus
Major—American History.
Minor—

LUCAS, HOWARD JOHNSON, B. A., M. A.....Columbus
Major—Chemistry.
Minor—French.

MCCLEES, IMOGENE, B. A.....Columbus
Major—Sociology.
Minor—English.

Name	*Home Address*

MACLEAN, MARGARET, B. A. ..... Columbus
Major—Chemistry.
Minor—Bacteriology.

MARK, CLARA GOULD, B. A. ..... Lewis Center
Major—Geology.
Minor—Botany.

MATHENY, CHARLES MORRIS, B. Ped. (Ohio Univ.) ..... Columbus
Major—American History.
Minor—Political Science.

MICHEL, CHRISTY WILLIAM, B. L. (Ohio Wesleyan Univ.) Columbus
Major—Physics.
Minor—Botany.

MORGAN, HELEN LOU, B. Ph., M. A. (Marietta College) ... Marietta
Major—Chemistry.
Minor—Physics.

MORRIS, SAMUEL, B. A., M. A. ..... Bloomingburg
Major—Chemistry.
Minor—

MORSE, WILLIAM CLIFFORD, B. A., M. A. ..... Columbus
Major—Geology.
Minor—

MORTON, CORA, B. A. ..... Norwood
Major—English.
Minor—

NUSBAUM, CHRISTIAN, B. A. ..... Columbus Grove
Major—Physics.
Minor—Chemistry.

O'KANE, WALTER COLLINS, B. A. ..... Columbus
Major—Zoology.
Minor—Botany.

PLUM, HARLEY MARTIN, B. A. ..... Ashville
Major—Chemistry.
Minor—

REEDER, CHARLES WELLS, B. A. ..... Columbus
Major—American History.
Minor—

REEL, STELLA MERION, B. A. ..... Columbus
Major—Latin.
Minor—English.

SALE, JOHN WALTER, B. A. (DePauw Univ.) ..... Marysville, Kan.
Major—Chemistry.
Minor—Metallurgy.

SALIERS, EARL ADOLPHUS ..... Siam
Major—Economics.
Minor—Sociology.

SCHROTH, ROBERT CHARLES, B. A. ..... Columbus
Major—German.
Minor—Physiology.

SEALOCK, WILLIAM ELMER, B. A. ..... McConnelsville
Major—American History.
Minor—

SEVERIN, HARRY CHARLES MAX, A. B. (University of Wisconsin), M. A. ..... Milwaukee, Wis.
Major—Zoology.
Minor—

Name — *Home Address*

SEVERIN, HENRY HERMAN PAUL, B. A., M. A. (University of Wisconsin) ..... Milwaukee, Wis.
Major—Zoology.
Minor—Botany.

SMITH, ALICE MAY, B. Ph..... Columbus
Major—Italian.
Minor—English.

STRATTON, GEORGE WEATHERWORTH, B. A. (University of Colorado) ..... Cripple Creek, Colo.
Major—Chemistry.
Minor—Mechanics.

TAYLOR, MARY EVA, B. A..... ..... Columbus
Major—English.
Minor—

VOGT, CLARENCE CHARLES, B. A. (Wooster Univ.), M. A. Zanesville
Major—Chemistry.
Minor—Physics.

WALSH, ANNETTE C., B. A..... Columbus
Major—Italian.
Minor—

WASHBURNE, GEORGE ADRIAN, B. A..... Columbus
Major—American History.
Minor—Political Science.

WEST, CARL JOSEPH, B. A..... Martinsville
Major—Mathematics.
Minor—Mechanics.

WING, MARY MARGARET, B. A. (Vassar College)..... Columbus
Major—Psychology.
Minor—French.

WITZEMANN, EDGAR JOHN, A. B. (James Millikin University) Decatur, Ill.
Major—Chemistry.
Minor—Bacteriology.

WOLF, ESTELLA, B. Ph. (Heidelberg University)..... Tiffin
Major—English.
Minor—American History.

WOOD, CHARLES G., B. A. (Univ. of Mississippi).. Brookhaven, Miss.
Major—Chemistry.
Minor—Bacteriology.

UNDERGRADUATES

Name	*Rank*	*Home Address*
Adams, John Charles,	Sophomore	Coraopolis, Pa.
Adell, Claude,	Junior	Groveport
Adell, Gertrude,	Sophomore	Groveport
Adkins, Stanley,	Junior	Circleville
Adler, Frederick Henry,	Senior	Chicago, Ill.
Aduddell, Helen H.,	Sophomore	Sarahsville
Albright, Alan Roth	Senior	Columbus
Almond, Bennie,	Special	Chicago, Ill.
Altmaier, Oscar Charles,	Sophomore	Columbus
Altstetter, Michael Louis,	Senior	Columbus Grove
Anderson, Annie Marie,	Freshman	Columbus

Name	*Rank*	*Home Address*
Anthony, Alice Isabel,	Senior	Columbus
Artz, Bertha,	Sophomore	Columbus
Asher, Mabel Mary,	Senior	London
Ashworth, David Roy,	Freshman	Eaton
Atcheson, Fannie Marie,	Junior	Linden Heights
Aten, Ada Adale,	Freshman	Groveport
Athey, Alide Elizabeth,	Freshman	Columbus
Atkinson, Agnes Jessie,	Sophomore	Columbus
Augustus, Charles Grant,	Sophomore	Springfield
Badger, Florence Fern,	Freshman	Columbus
Baird. Dow Abram,	Freshman	Wellington
Baird, Gladys,	Freshman	Columbus
Bancroft, Elizabeth Harriet,	Junior	Columbus
Banks, Luther Hewitt,	Freshman	Columbus
Barr, Jessie Errett,	Sophomore	Brice
Barringer, Harrison Edward,	Sophomore	Washington, D. C.
Barsamian, Dicran Barsam,	Junior	Marsovan, Turkey
Bayha, Anna Eliza,	Junior	Wheeling, W. Va.
Beall, Julia Taylor,	Freshman	Columbus
Beaver, Austin Benjamin,	Sophomore	Columbus
Beebe, Marjorie,	Sophomore	Columbus
Bell, Blanche Marie,	Freshman	Miamisburg
Benkert, Flora Barbara,	Freshman	Columbus
Bennett, William Vincent,	Sophomore	Columbus
Berlin, Frank Stokes,	Special	Chambersburg, Pa.
Bertholf, Arthur Judson,	Freshman	West Toledo
Bessire, Austin Lewis,	Freshman	Lima
Bethel, Louise Amidon,	Freshman	Columbus
Bice, Hubert Emerson,	Senior	Spencerville
Bidwell, Nathan Beach,	Freshman	London
Biggert, Grace,	Junior	West Jefferson
Bischoff, Joseph Trouy.	Sophomore	Cleveland
Black, Anabel Carter,	Freshman	Columbus
Blaine, Eddith E.,	Freshman	Mt. Sterling
Blakesly, Philip Israel,	Junior	Dayton
Blanchard, Forest Ira,	Sophomore	Sidney
Bleile, Flora,	Freshman	Columbus
Boesel, Robert Carl,	Senior	New Bremen
Boesel, Stephen W.,	Sophomore	New Bremen
Booher, Claude Herbert,	Special	Tuscarawas
Boone, Chelsea Charles,	Sophomore	Whiteland, Ind.
Borland, Earl Stuart,	Freshman	Cleveland
Bostwick, Valeria,	Senior	Columbus
Bowen, Rochester Will,	Freshman	Logan
Bower, Katharine Maxwell,	Freshman	Parsons, Kan.
Bower, Louis Floyd,	Sophomore	Kingston
Bown, Ethel Adelle,	Senior	Columbus
Boylan, Marguerite,	Senior	Columbus
Bradford, Florence Josephine,	Freshman	Columbus
Bradford, Oliver Haig,	Freshman	Columbus
Bradley, Florence,	Freshman	Columbus
Brady, Laura Augusta,	Sophomore	Columbus

Name	*Rank*	*Home Address*
Brand, Elizabeth Flora,	Sophomore	Columbus
Breese, Hazel Elizabeth,	Junior	Columbus
Briggs, Warren Milton,	Sophomore	Portsmouth
Brooks, Katharine Allein,	Freshman	Columbus
Brown, Jessie May,	Sophomore	Columbus
Brown, Ruth Evelyn,	Sophomore	Columbus
Brown, Thaddeus Harold,	Senior	Cardington
Buchanan, Thomas Edwin,	Sophomore	Ripley
Bull, Isabella Harr,	Sophomore	Columbus
Bumgardner, Harry H.,	Junior	Lancaster
Burket, Mabel Florence,	Freshman	Columbus
Buschmann, Gertrude Eva Mary,	Special	Columbus
Caldwell, George T.,	Sophomore	Cable
Campbell, Margaret,	Junior	Columbus
Capell, Mary Alice,	Senior	Columbus
Caren, Alice Catherine,	Freshman	Columbus
Carothers, Frank K.,	Senior	Sidney
Carpenter, Frances,	Sophomore	Washington C. H.
Carr, Frank Clyde,	Junior	Dayton
Carroll, Marie Josephine,	Senior	Columbus
Cartmell, Bessie,	Senior	Columbus
Case, Luella,	Senior	Columbus
Chamberlain, Florence M.,	Junior	Marion
Chambers, Mrs. Jennie,	Junior	Columbus
Chapman, Albert Kinkade,	Freshman	Marysville
Chariton, Helen Price,	Freshman	Columbus
Chew, Kok Hean,	Sophomore	Penang, Malay Pen.
Christmann, Julia Anna,	Sophomore	Columbus
Clark, Clinton Willard,	Senior	Wapakoneta
Clark, Hugh,	Senior	Wapakoneta
Clarke, Helen M.,	Senior	Columbus
Clawson, James F.,	Sophomore	Hamilton
Clayton, Howard Dimock,	Sophomore	Jennings, La.
Clevenger, Mabel,	Freshman	Mt. Sterling
Clymer, Carleton,	Freshman	Chillicothe
Cochrane, Georgia Alberta,	Freshman	Columbus
Cochrun, Otto Austin,	Junior	Columbus
Cole, Arnet B.,	Junior	Columbus
Colgan, Grace Veronica,	Freshman	Columbus
Collins, Robert Willoughby,	Freshman	Columbus
Collison, Laura Gast,	Junior	Columbus
Comstock, Grace Darling,	Freshman	Dayton
Condit, Daniel Dale,	Senior	Jersey
Connell, Margaret Rachel,	Junior	Shepard
Corbett, Mary Catherine,	Junior	Columbus
Corbett, Russell Joseph,	Freshman	Columbus
Corbin, Alma,	Senior	Columbus
Corkwell, Clarence Lister,	Senior	Mt. Sterling
Cornell, Paul,	Freshman	Columbus
Corwin, Hilda J.,	Sophomore	Columbus
Cozzens, William Leonard,	Freshman	Columbus
Crabbe, Thyrza M.,	Junior	Mt. Sterling

Name	*Rank*	*Home Address*
Crane, Evan Jay,	Sophomore	Columbus
Crawford, Nelle,	Sophomore	Columbus
Crew, Kathleen,	Sophomore	Chesterhill
Crim, Louise,	Freshman	Galion
Cromer, Morris Patty.	Sophomore	Dayton
Cromley, Catherine Edelen,	Freshman	Amanda
Cromley, Mildred,	Sophomore	Amanda
Crooks, Clair L.,	Senior	Van Wert
Crow, Stanley Edwin,	Senior	Jacksontown
Crowe, Homer Francis,	Special	Columbus
Dagger, Golden Norman,	Junior	Urbana
Dana, Doris Dorothy,	Freshman	Columbus
Daniel, Mildred,	Special	Columbus
Darnell, Katheryn,	Sophomore	Grove City
Dauber, Clara Mae,	Junior	Jackson
Davies, Gordon,	Senior	Columbus
Davis, Blanche,	Junior	Columbus
Davis, Ernest Louis,	Sophomore	Springfield
Davis, Mary Virginia,	Senior	Clintonville
Davis, Maude,	Junior	Columbus
Davis, Paul Arthur,	Sophomore	Jackson
Deatrick, Nell Carolyn,	Sophomore	Columbus
De Muth, Mabel Eva,	Senior	Columbus
De Nune, Ina Fern,	Senior	Linden Heights
De Selm, Ralph Emerson,	Freshman	Columbus
De Vereaux, Margaret L.,	Freshman	Mechanicsburg
Dey, Pramatha Nath,	Sophomore	Bhatera, India
Dickey, Joseph Arlington,	Senior	Continental
Dickey, Malcolm Gillespie,	Junior	Clintonville
Diegle, Claude R.,	Sophomore	Sandusky
Domonev, Alice,	Junior	Columbus
Dones, Hieatt Slaback,	Freshman	New Holland
Douglas, Sholto Moore,	Sophomore	Waverly
Drury, E. Faye,	Special	Columbus
Duff, Roy,	Freshman	Columbus
Dumm, Leah Lentelle,	Sophomore	Columbus
Dun, Mary Louise,	Freshman	Columbus
Dunn, Clara Belle,	Junior	Columbus
Dye, Sidney Ogier,	Senior	Hamden Junction
Ehler, Harvey Franklin	Junior	Eaton
Eisenman, William,	Freshman	New York City
Elder, Mary Esther,	Freshman	Columbus
Eldridge, William Heath,	Junior	Columbus
Embry, Jessie Floyd,	Senior	Columbus
Emerson, Jessie Field,	Freshman	Columbus
Emerson, Sybil Davis,	Freshman	Columbus
Evans, David William,	Freshman	Brecksville
Evans, Elsie May,	Sophomore	Columbus
Evans, Raymond Oscar,	Junior	Columbus
Evans, Robert Welsh,	Junior	Chillicothe
Evans, Ruth,	Sophomore	Columbus
Evans, Thomas Clinton,	Sophomore	Columbus

Name	*Rank*	*Home Address*
Evans, William Hubert,	Freshman	Columbus
Evens, Mary Caroline,	Freshman	Cincinnati
Everett, Frank,	Sophomore	Columbus
Fair, Marguerite Emma,	Junior	Columbus
Fairbanks, George C.,	Sophomore	Springfield
Falter. Ida K.,	Freshman	Columbus
Farbach, Clifford Elmer,	Senior	Cincinnati
Fellows, Howard,	Sophomore	Columbus
Ferguson, Henrietta Wilberte,	Senior	Columbus
Fite, Arthur Sells,	Freshman	Georgetown
Fitzgerald, Albert Daniel,	Sophomore	Old Fort
Flannery, Grace Inez,	Freshman	Catasauqua, Pa.
Flocken, Ira Graessle,	Senior	Mansfield
Florence, Walter B.,	Freshman	South Charlestown
Flory, Alice,	Sophomore	Cleveland
Fogle, Helen Margaret,	Sophomore	Milo
Foote, Ethel Marie,	Freshman	Columbus
Forman, Jonathan,	Junior	Madison
Freeman, Bina Henrietta,	Sophomore	Chillicothe
French, Walter,	Freshman	Salem
Fries, Harry A.,	Sophomore	Bloomdale
Frost, Elizabeth,	Junior	Columbus
Frost, Frances Gertrude,	Freshman	Dayton
Fuller, Deweese Hitt,	Junior	Urbana
Fuller, James Robert,	Freshman	Urbana
Fulton, Adelaide Mary,	Senior	Columbus
Fulton, Bentley B.,	Freshman	Newark
Gable, Earl William,	Freshman	Lorain
Gabriel, Irene,	Sophomore	Milford Center
Gallen, Frances Thomas,	Sophomore	Columbus
Gallen, Helen M.,	Senior	Columbus
Garcia, Rufino,	Sophomore	Magsingal, P. I.
Gardiner, Elizabeth Marguerite,	Freshman	Columbus
Garmhausen, Erwin John,	Sophomore	New Bremen
Garrison, Anna Lorena,	Sophomore	Lancaster
Garvin, Charles Rabe,	Senior	Cumberland
Gatewood, Wesley Emmet,	Freshman	Clintonville
Gease, John Henry,	Freshman	Columbus
Gheen, Olive,	Senior	Delta, Colo.
Giesy, Paul Miller,	Junior	Columbus
Gilkey, Ethel Humes,	Sophomore	Clintonville
Gillette, Clifford E.,	Sophomore	Marion
Gilliam, Florence Edna,	Senior	Columbus
Gillivan, Ralph Francis,	Freshman	West Jefferson
Gilmore, Jackson Gardner,	Freshman	Dayton
Gilpin, Lawrence Thomas,	Freshman	Columbus
Gilpin, Mabel Elizabeth,	Sophomore	Columbus
Gittins, Stella Rose,	Freshman	Columbus
Glenn, Helen Mae	Freshman	Columbus
Gorman, Edwin W.,	Junior	Sharonville
Gothlin, Margaret Louise,	Sophomore	Columbus
Gray, Wayne Coulter,	Senior	Columbus

Name	*Rank*	*Home Address*
Green, Helen Lee,	Freshman	Gambier
Greene, Allen Chrysler,	Freshman	Columbus
Greener, Nelle Davis,	Senior	Columbus
Greiner, Corna Marguerite,	Senior	Columbus
Gress, Bertha Augusta,	Senior	Columbus
Grillo, Ambrosio A.,	Freshman	Santiago, Cuba
Grimes, Marie Louise,	Sophomore	Dayton
Grimm, John Crawford,	Sophomore	Columbus
Grommé, Irene,	Senior	Lancaster
Grosse, Simon J.,	Sophomore	Madisonville
Groves, Sadie Pearl,	Sophomore	Shepard
Gruber, John Leonard,	Special	Columbus
Haber, Roy,	Freshman	Greenville
Haber, Vernon Raymond,	Freshman	Greenville
Haeseler, Minona,	Freshman	Springfield
Haldy, Helen,	Sophomore	Camp Chase
Hall, William Earl,	Sophomore	Georgetown
Hamilton, Lucy,	Junior	East Liberty
Hamilton, Paul Ibbotson,	Junior	Glenford
Hanly, Lydia Winifred,	Senior	Columbus
Hanna, Arthur Raymond,	Freshman	De Graff
Hanway, Fred Jay,	Freshman	Alexandria
Hardin, John Franklin,	Junior	Clintonville
Hare, Alice Daisy,	Special	Columbus
Hare, Jonathan S.,	Freshman	Upper Sandusky
Harlan, Helen Rosalie,	Freshman	Columbus
Harlan, Louise,	Sophomore	Columbus
Harmount, George Pryor,	Junior	Columbus
Harris, Isabel Neill,	Freshman	Lancaster
Hart, Florence,	Freshman	Columbus
Hatch, Arline Calista,	Sophomore	Columbus
Hatton, Otis C.,	Junior	Marysville
Haynie, Ethel Marie,	Junior	Columbus
Haynie, Fred S.,	Junior	Columbus
Hedges, Hazel,	Sophomore	Mansfield
Heinzen, Karl A.,	Freshman	Canton
Heller, Vernon Otis,	Senior	Blanchester
Helms, Mary Harris,	Sophomore	Steubenville
Herbert, Paul Morgan,	Freshman	McComb
Herbst, Marguerite Elizabeth,	Sophomore	Columbus
Herron, Ruth Edgerly,	Freshman	Columbus
Hesse, Gail Lafayette,	Junior	Columbus
Hesse, George Ernest,	Junior	Columbus
Hiatt, George Jesse,	Special	Chesterhill
Hickey, Catherine,	Freshman	East Liverpool
Hicks, Lenora,	Junior	Columbus
Hickson, Dean M.,	Junior	Ashley
Hightower. Henderson Grover,	Senior	Columbus
Hill, Freda,	Sophomore	Porto Rico
Hixson, Grace Catherine,	Senior	Wellington
Hodges. Willis Holland,	Senior	Urbana
Hoffhine, Fannie Maria,	Freshman	Columbus

Name	*Rank*	*Home Address*
Hogsett, John Thomas,	Freshman	Marshall
Holkencamp. Henry, Jr.,	Freshman	Dayton
Holmes, Robert Benjamin,	Freshman	Norwood
Hooper, Richard Babbitt,	Sophomore	Columbus
Hoover, Edwin,	Freshman	Lebanon
Hoover, Mary Evelvn,	Freshman	Columbus
Hoover, Stuart A.,	Senior	Columbus
Horst, Anita J.,	Sophomore	Columbus
Horst, Bertha C.,	Sophomore	Hilliards
Howard, Homer Hildreth,	Senior	Mansfield
Howell, Blanch Addalene,	Freshman	Crawfordsville, Ind.
Howell, Wilbert Reed,	Senior	Gallipolis
Hudgel, Florence Edith,	Sophomore	Columbus
Hughes, Edward Coslett,	Sophomore	Columbus
Hughes, Henry T.,	Sophomore	Columbus
Hugus, Lloyd V.,	Sophomore	Findlay
Hull, Herbert Curtis,	Junior	Dayton
Humphreys, Marie,	Sophomore	Columbus
Hunt, Bertha,	Sophomore	Mechanicsburg
Hunter, Junius K.,	Senior	Chillicothe
Huntington, Jane,	Special	Columbus
Hupman, William Paul,	Sophomore	Xenia
Huston. Eleanor Clara,	Senior	Columbus
Huston, Florence L.,	Sophomore	Columbus
Hutchinson, James Elder,	Senior	Xenia
Hyde, Katybel,	Senior	Columbus
Irish, Cullen Ward,	Freshman	Barberton
Irvin, Faye,	Freshman	Columbus
Irvine, Dorothy,	Sophomore	Columbus
Jackson, Mary Eliza,	Freshman	Columbus
Jacobs, Phillip,	Sophomore	Portsmouth
Jakeway. Madge Arlena,	Freshman	Columbus
Janeway, Harold,	Junior	Columbus
Jenkins, Isaac Newton,	Special	Oak Hill
Johnson, Leonard,	Sophomore	Columbus
Jones, Carrie Louise,	Junior	Columbus
Jones, Clarence Alexander,	Junior	Columbus
Jones, Edith Alicia,	Freshman	Columbus
Jones, Ethel,	Junior	Columbus
Jones, Gladys Jeannette,	Sophomore	Columbus
Jones, Lucille Catharine.	Freshman	Columbus
Jones, Thomas Hoyt,	Senior	Jackson
Kampmann, Marie Jeannette,	Freshman	Columbus
Karshner, Hazel Alice.	Sophomore	Columbus
Kauffman, George Hughes,	Junior	Columbus
Keefe, Gertrude,	Freshman	Delaware
Kellerman, Maude,	Senior	Columbus
Kellman, Sydney,	Junior	St. Michaels, W. I.
Kelsey, Ned,	Freshman	Toledo
Kelso, Genevieve,	Junior	Clintonville
Kelton, Stanton Coit,	Sophomore	Columbus
Ketner, Victor Clare,	Freshman	Columbus Grove

Name	*Rank*	*Home Address*
Kibler, Charles S.,	Freshman	Newark
Kibler, Edward, Jr.,	Senior	Newark
Kidwell, Helen Louise,	Sophomore	Columbus
Kientz, John Edward,	Senior	Glouster
Kile, Elton Merrill,	Junior	Kileville
Kile, Merton,	Sophomore	Groveport
King, Lyonel Joseph,	Freshman	Cleveland
Kinkade, Alice,	Senior	Marysville
Kinsell, Marie,	Sophomore	Arlington
Kiplinger, Willard Monroe,	Freshman	Columbus
Kipp, George Albert,	Freshman	Sidney, N. Y.
Kirkpatrick, Donald,	Junior	Utica
Kitzmiller, Harrison M.,	Junior	Columbus
Kloeb, Francis Le Blond,	Freshman	Columbus
Knopf, Ruth Florence,	Freshman	Columbus
Koehler, Susanne M.,	Senior	Columbus
Komminsk, Harry,	Sophomore	New Bremen
Krieger, Helen Marie,	Freshman	Columbus
Kuenzel, Paul Emil,	Sophomore	New Bremen
Kurtz, Russell Harold,	Freshman	Carey
Labadie, Laurence Albert,	Freshman	Ottawa
Lake, Charles H..	Senior	Granville
Lake, William Walter.	Freshman	Richwood
Langel, Merle Le Blond,	Freshman	Celina
Laumer, Kathryn Edith,	Freshman	Sugar Grove
Laver, Edith,	Special	Chicago, Ill.
Lawrence, Gaines,	Sophomore,	Columbus
Lawrence, Genevieve Agnes,	Sophomore,	Rock Island, Ill.
Lawrence, James Cooper,	Junior	Columbus
Laylin, Lewis Fairchild,	Freshman	Columbus
Lazarus, Robert,	Freshman	Columbus
Leckliter, Grace D.,	Freshman	Columbus
Lee, Benjamin Yin,	Freshman	Columbus
Leib, Josephine May,	Sophomore	Columbus
Leinbach, Lilly,	Sophomore	Rossville, Ga.
Lemmon, Charles E.,	Freshman	East Liverpool
Lenox, Helen,	Sophomore	Columbus
Lentz, Anna Belle,	Sophomore	St. Clairsville
Lentz, Doris Wells,	Freshman	Columbus
Lepley, Clothilda Belle,	Junior	Millwood
Lewis, Myrtle B.,	Junior	Columbus
Lichtenwalter, Earl E..	Sophomore	Smithville
Lieser, Charles Elmer,	Junior	Newcomerstown
Lippincott, Ruth,	Sophomore	Columbus
Lisle, Marguerite,	Junior	Columbus
Lloyd, Austin M.,	Sophomore	New Cumberland, W. Va.
Loewel, Florence,	Sophomore	Columbus
Loewer, Flora A.,	Special	Columbus
Loggans, Edward James,	Junior	Greenfield
Long, Florence Alma,	Freshman	Ashtabula
Lott, Helen Flowers,	Sophomore	Columbus

Name	*Rank*	*Home Address*
Lovejoy, Mabel,	Senior	Columbus
Luby, Walter F.,	Senior	Zanesville
McCann, William Sharp,	Sophomore	Cadiz
McCarty, Leon B.,	Junior	Columbus
McCarty, Pearl Alphonso,	Senior	Mechanicsburg
McClees, Helen,	Sophomore	Columbus
McCombs, Charles Flowers,	Senior	Columbus
McCoy, Mary Elsie, B. A.,	Senior	Wilmington
McCune, Charles Nathaniel,	Junior	Plainfield
McDonald, John Jacob,	Junior	Worthington
McFarland, Russell Robert,	Freshman	Carroll
McGaughy, Mary Catherine,	Freshman	Columbus
McGill, Don R.,	Sophomore	Nelsonville
McKay, Marion O'Kellie,	Junior	Sunbury
McKelvey, Edith Kimmel,	Freshman	Columbus
McLaughlin, James Bennett,	Freshman	Columbus
McMullen, John Pearce,	Sophomore	Hillsboro
McMullen, Raymond Fay,	Freshman	Hillsboro
McMullen, Robert Beecher,	Sophomore	Hillsboro
MacFadden, Alfred Percy,	Freshman	Cadiz
Mack, Clinton Leroy,	Freshman	Windsor, Conn.
Mackall, Helen,	Senior	Barnesville
Mackey, Frank Clark,	Junior	Cambridge
Mahaffey, Vernon Erwin,	Sophomore	Manchester
Maize, William Gifford,	Junior	Columbus
Makepeace, Mary Virginia,	Senior	Columbus
March, Perrin George, Jr.,	Sophomore	Fern Bank
Markeson, Helen Gilpin,	Sophomore	Columbus
Markeson, Mary,	Senior	Columbus
Marsh, Frederick Albert,	Junior	Nelsonville
Marting, Ralph Sherman,	Freshman	Portsmouth
Mason, Mabel,	Sophomore	Sugar Grove
Maxwell, Ralph Edgar.	Junior	Columbus
May, Mary T.,	Junior	Columbus
Mayer, Earl Daniel,	Sophomore	Columbus
Meckstroth, Jacob A.,	Freshman	New Knoxville
Meckstroth, Jacob T.,	Freshman	St. Mary's
Medbery, Mary May,	Freshman	Reynoldsburg
Menefee. Ona,	Sophomore	Columbus
Metcalf, Clell Lee,	Sophomore	Plimpton
Meyers, Mary Margaret,	Freshman	Columbus
Mikesell, Wilber B.,	Freshman	Covington
Miles, Clara,	Senior	Columbus
Miller, Charles Stanley,	Sophomore	Dublin
Miller, Clyde Ravmond,	Sophomore	Columbus
Miller, Edgar Allan,	Sophomore	Pataskala
Miller, Florence Anna,	Freshman	Columbus
Miller, Gail Edna,	Freshman	Columbus
Mills, Helen Marie,	Freshman	Columbus
Mills, Inez Edna,	Sophomore	Columbus
Mohr, Helen Frances,	Freshman	Columbus
Monnett, Howard B.,	Junior	Columbus

Name	*Rank*	*Home Address*
Mooney, John Davenport,	Freshman	Woodsfield
Morningstar, Charlotte,	Sophomore	Columbus
Morris, Alice Louise,	Senior	Columbus
Morris. Mary Hortense,	Freshman	Bloomingburg
Morrison, Helen,	Freshman	Columbus
Morrow, Roger Benton,	Freshman	Columbus
Moses, Clarence Flavel,	Freshman	Powell
Mott, Albert John,	Special	Shelby
Moyer, Jesse William,	Special	Wilmot
Mathanson, Jonas B.,	Freshman	Toledo
Neal, Carl Eugene,	Freshman	Cardington
Neeb, George Frederick,	Senior	Dayton
Nelson, Leo Raymond,	Senior	Columbus
Nesbitt, Edith Mary,	Junior	Columbus
Newhouse, Marie Minter,	Freshman	Arlington
Newlove, Clara Inman,	Junior	Columbus
Newlove, Florence Almeda,	Senior	Columbus
Nichols, Edmund Leslie,	Freshman	Wapakoneta
Noble, Sylvester A.,	Sophomore	Columbus
Norman, John Warren,	Freshman	St. Paris
Norton, Mary Carolyn,	Freshman	Bellaire
Oberlin, Mary Lavina,	Senior	Massillon
O'Brien, Harry Russel,	Junior	Union
O'Connor, Florence Langford,	Junior	Columbus
Oppenheimer, Russell H.,	Sophomore	Fremont
Orr, Laura Corinne,	Sophomore	Wellsville
Osborn, Evelyn,	Sophomore	Columbus
Osborn, Harry James,	Sophomore	Wilkinsburg, Pa.
Osborn, Herbert Tirrill,	Senior	Columbus
Osborn, Owen Gray,	Sophomore	Jacksontown
Osbourne, Inez,	Senior	Baltimore
Ozias, Christian M.,	Junior	West Alexandria
Palm, Frederick L.,	Special	Lexington
Parkinson, George Edward,	Sophomore	Columbus
Parrott, Charles,	Sophomore	Dayton
Patterson, Robert George.	Freshman	Kokomo, Ind.
Patterson, Walter C.,	Special	Defiance
Paxton, John Fred,	Junior	Groveport
Per Diue, Jean Ernona,	Junior	Columbus
Pettit, Claude Westcoat,	Sophomore	Logan
Phelps, Frank Mills,	Junior	Elyria
Pierson, Egbert Heber,	Sophomore	Painesville
Polley, David William Latimer,	Sophomore	Columbus
Pope, Florence Elizabeth,	Sophomore	Columbus
Powell, Frederick F.,	Senior	Columbus
Powell, Harold Thompson,	Sophomore	Columbus
Price, Clara Frances,	Sophomore	North Fairfield
Price, Olive Edna,	Senior	Columbus
Priest, Ralph Barnard,	Sophomore	Newark
Pumphrey, Claude E.,	Sophomore	Massillon
Purcell, Ella June,	Sophomore	Columbus
Rainey, Cecil DuBois,	Senior	Mansfield

Name	*Rank*	*Home Address*
Randall, Cecil Jay,	Senior	Columbus
Randall, Sherman Bronson,	Special	Columbus
Rathburn, Mabel B.,	Freshman	Columbus
Raudabaugh, Sada,	Sophomore	Celina
Rawie, Helen Marguerite,	Freshman	Columbus
Rayner, Earl Clemans,	Sophomore	Xenia
Reed, Ernest Victor,	Freshman	Kossuth
Reeder, Harold Lester,	Freshman	Columbus
Rees, Gladys,	Freshman	Columbus
Reese, Gilbert,	Sophomore	Columbus
Reinhard, Evangeline,	Special	Columbus
Renz, Emilie Catherine,	Junior	Columbus
Reynolds, Ralph Jabez,	Freshman	Columbus
Rhoades, Rachel,	Junior	Columbus
Richard, Bertha,	Freshman	Mansfield
Richey, William A.,	Junior	Van Wert
Richmond, Louise,	Sophomore	London
Riddile, Mary Ada,	Freshman	Columbus
Riddle, Eloise Hall,	Junior	Columbus
Riker, Benjamin H.,	Sophomore	St. Paris
Rinehart, Helen E.,	Junior	Toledo
Risley, George Lowry,	Freshman	Columbus
Rittgers, Blanche Minnie,	Freshman	Columbus
Roach, Charles James,	Freshman	Newark
Robbins, Cecil Alger,	Freshman	Columbus
Roberts, Stanley Owen,	Freshman	Jackson
Robinson, Stanley Ulrich,	Freshman	Worthington
Rodgers, Mary Miriam,	Freshman	New Lexington
Rodgers, Stanley Tippett,	Freshman	Middletown, N. Y.
Rogatzky, Arthur,	Freshman	Columbus
Rogers, Grace,	Junior	Columbus
Rogers, Lucile,	Sophomore	Hilliard
Rogers, William Curtis,	Freshman	Columbus
Romaine, Ruth Margaret,	Freshman	Columbus
Rowe, Mina,	Freshman	Washington C. H.
Rower, Emma Elizabeth,	Junior	Fort Jennings
Rowlands, Gertrude Mabel,	Special	Lawrence, Kan.
Ruecker, August,	Special	Columbus
Runkle, Harry Maize,	Sophomore	Columbus
Saffin, Charles Guy, Jr.,	Junior	Columbus
Sage, James Reuben,	Freshman	Cardington
Sager, Frances Maria,	Freshman	Marysville
Sample, Naomi Zaneta,	Special	Perrysville
Scarlett, Edwin John,	Freshman	Columbus
Scatterday, John Archimedes,	Sophomore	Columbus
Schanfarber, Nettie,	Freshman	Columbus
Schauweker, Arthur Albert	Freshman	Newark
Schenck, Earl Oscar,	Sophomore	Columbus
Schieser, Leo	Freshman	Groveport
Schirack, Raymond,	Freshman	St. Henry
Schlesinger, Arthur Meier,	Junior	Xenia
Schmidt, Edward,	Freshman	Georgetown

Name	*Rank*	*Home Address*
Schneider, Marie Louise,	Junior	Columbus
Schump, Edrel Irene,	Freshman	Columbus
Schwartz, Alice Grace,	Junior	Columbus
Schwartz, Marie,	Freshman	Columbus
Scott, Helen H.,	Senior	Worthington
Scott, Helen Rosetta,	Freshman	Columbus
Sedgwick, Chester C.,	Junior	Martin's Ferry
Seeley, Grace Langdon,	Sophomore	Columbus
Selby, Warren Fowke,	Senior	Wooster
Selegue, Inez E.,	Sophomore	Akron
Sellers, Pearle E.,	Junior	Kenton
Sells, Stanley Needels,	Sophomore	Columbus
Shade, Ernest Franklin,	Junior	Bath
Shaffer, Francis Henry,	Junior	Columbus
Shaffer, Henry Rockwell,	Freshman	Columbus
Shannon, Anna M.,	Senior	Columbus
Sharon, John Cunningham,	Sophomore	Cadiz
Shaw, A. Vere,	Senior	Mansfield
Shawan, Jacob Albright,	Freshman	Columbus
Shephard, Jane Armstrong,	Special	Columbus
Shepherd, Louise,	Sophomore	Columbus
Sheridan, Joe.	Freshman	Dayton
Sherman, Mapel Dell,	Sophomore	Columbus
Sherman, Myra Ann,	Senior	Columbus
Shira, Austin Flint,	Sophomore	La Rue
Shoop, Besse,	Sophomore	Washington C. H.
Shore, Ben Edwards,	Junior	Dresden
Shrader, James Edmond,	Senior	Columbus
Silbaugh, Mary,	Sophomore	Lancaster
Silver, Benjamin Stokes,	Junior	Waynesville
Sim, Robert James,	Sophomore	Jefferson
Singleton, Elizabeth,	Sophomore	Columbus
Sipe, Hazel,	Freshman	Lisbon
Skimming, Reba,	Freshman	Wilmington
Smith, Alva W.,	Freshman	Fayette
Smith, Arthur L.,	Senior	Valley Crossing
Smith, Charles Alan,	Senior	Columbus
Smith, Elvira Thrall,	Freshman	Columbus
Smith, Ethel Marie,	Senior	Hartsgrove
Smith, Harley Wright,	Freshman	Worthington
Smith, Harold Sidney,	Sophomore	Columbus
Smith, Hazel Marie,	Freshman	Columbus
Smith, Helen Bertram,	Special	Columbus
Smith, Joy Hardy.	Freshman	Columbus
Smith, Kathryn,	Sophomore	Columbus
Smith, Marie Ruetta,	Freshman	Elmwood
Smith, Muriel,	Junior	Columbus
Smith, Percy Monroe,	Junior	Unionville Center
Smith, Ray Fridley,	Sophomore	Lancaster
Smythe, John Joseph,	Freshman	Dennison
Snyder, Ethel,	Sophomore	Columbus
Snyder, Loretta,	Freshman	Kenton

Name	*Rank*	*Home Address*
Somerville, Madge Louise,	Junior	Toledo
Spahr, Elmer Gideon,	Senior	Clifton
Spangler, Edward Carl,	Freshman	Worthington
Spencer, Helen Marie,	Sophomore	Columbus
Spengler, Herman Otto,	Freshman	Napoleon
Sprague, Martin Nelson,	Sophomore	Lima
Starr, Leland,	Freshman	West Unity
Steele, Harriel,	Senior	Los Angeles
Stephan, Vesta,	Sophomore	Columbus
Stephens, Walter Jackson,	Freshman	Columbus
Steube, Margaret Gebhardt,	Junior	Columbus
Stevens, Cornelia Agnes,	Senior	Columbus
Stevenson, Mary Maude,	Junior	Lancaster
Stevenson, Reginald Y.,	Sophomore	East Palestine
Stewart, Olus Jessie, B. Ph.,	Freshman	Killbuck
Stewart, Samuel,	Sophomore	Ridgeway
Stillwell, Viola Ellen,	Special	Columbus
Stitt, Helen Louise,	Junior	Columbus
Stocklin, Minnie Lillian,	Junior	Columbus
Stockum, Milo Ernest,	Freshman	Coshocton
Stone, Rose,	Sophomore	Columbus
Stroedter, Esther Elizabeth,	Freshman	Columbus
Stuber, Mildred Day,	Junior	Columbus
Stukey, Frank Hamilton,	Sophomore	Lancaster
Sturgeon, Uda Marie,	Freshman	Columbus
Sullivan, Margaret Mary,	Junior	Columbus
Summers, Merle Greely,	Sophomore	West Jefferson
Swift, Rose Agnes,	Senior	Columbus
Taft, Lawrence Ritson,	Sophomore	Columbus
Talbott, Dean C.,	Junior	Galion
Tanner, Edna Violet,	Freshman	Columbus
Tanner, William Graham,	Freshman	Columbus
Tao, Daqueen,	Junior	Hupeh, China
Taylor, Charles Fletcher,	Junior	Columbus
Taylor, Dorothea,	Junior	Shepard
Taylor, Henry DeHoss,	Senior	Columbus
Taylor, Marguerite Grove,	Freshman	Columbus
Teegarden, Rolland Elston,	Sophomore	Greenville
Terman, Earl Luther,	Freshman	Mansfield
Thatcher, Harvey S.,	Senior	Columbus
Theobald, Clara Fassig,	Special	Columbus
Theobald, Ottilie,	Sophomore	Columbus
Thomas, Carl Hiram, B. A.,	Special	Rapids
Thomas, Cecil Anna,	Freshman	Columbus
Thomas, Mary Elizabeth,	Freshman	Columbus
Thomas, Sarah A.,	Special	Columbus
Thomas, William Llewellan,	Senior	Bellaire
Thome, Grace,	Senior	Columbus
Thompson, Thomas Mahlon,	Freshman	Grove City
Thurston, Norton,	Senior	Grand Rapids
Tilden, Francis F.,	Special	Ansonia
Tilden, Helen,	Freshman	Canton

Name	*Rank*	*Home Address*
Tingley, Herman Rathmell,	Sophomore	Columbus
Tinker, Arthur W.,	Junior	Columbus
Tinsley, Benjamin Rogue,	Junior	Covington, Ky.
Tomy, Louise Esther,	Sophomore	New Waterford
Toole, Theodore Thaddeus,	Freshman	Columbus
Torossian, Gregory,	Junior	Artuin, Russia
Trainer, James England,	Sophomore	Columbus
Tressell, Nettie Evelyn,	Junior	Columbus
Trilck, Roderick Henry,	Freshman	Detroit, Mich
Truckmiller, Dorcas,	Sophomore	Columbus
Truman, Francis Carleton,	Freshman	Euclid
Tuller, Gladine Marguerite,	Freshman	Columbus
Tuller, Urith Marie,	Senior	Columbus
Tussing, Reginald Miller,	Special	Columbus
Urlin, Claudine,	Freshman	Grand View
Van Sickle, Guy E.,	Senior	Columbus
Von Blon, Philip A.,	Sophomore	Upper Sandusky
Vordermark, William E.,	Junior	New Knoxville
Vorys, George Warren,	Freshman	Lancaster
Walter, Frances Cameron,	Senior	Columbus
Warner, Martha Trone,	Special	Ashville
Warren, James Halford,	Sophomore	Storm Lake, Iowa
Washburn, Carl DeWitt,	Sophomore	Columbus
Washburn, Marie,	Freshman	Nelsonville
Waters, Harriet L.,	Sophomore	Lancaster
Watkins, Blanche,	Freshman	Columbus
Watson, Robert John	Freshman	Dennison
Watson, Stanley Henry,	Sophomore	Thurston
Weber, August William	Freshman	Dublin
Webster, Florence Evelyn,	Sophomore	Columbus
Weidman, Walter B.,	Sophomore	Chillicothe
Weiser, Harry Boyer,	Sophomore	Carroll
Weist, Oliver Clyde,	Senior	Basil
Weisz, Florence Marie,	Sophomore	Columbus
Wellman, Henry George,	Sophomore	New Knoxville
Wells, Bertram Whittier,	Sophomore	Toledo
Werner, Roy G.,	Senior	Mt. Sterling
Wertheim, Roy Jacob,	Senior	Findlay
Werum, Clarence,	Senior	Columbus
West, Grace B.,	Freshman	Martinsville
Weyant, Ethel,	Freshman	Columbus
Weyman, Vera Lucile,	Senior	Painesville
White, Clyde Wayland,	Junior	Hilliards
White, Nicholas Gill,	Sophomore	Kirkersville
Whitten, Julia Edith,	Freshman	Columbus
Wieland, Merton V.,	Junior	Sandusky
Wiernikowsky, Isaac, Ph. D.,	Special	Columbus
Wikoff, Berenice Floye,	Freshman	Columbus
Wilber, Ruth C.,	Freshman	Marysville
Wild, Charles William,	Freshman	Canton
Wildermuth, Elias Fay,	Junior	Carroll
Wiley, Homer,	Sophomore	Whiteland, Ind.

Name	*Rank*	*Home Address*
Wilkins, Ivan Luro,	Junior	Columbus
Will, Alpha J.,	Special	Toledo
Will, Harry Sylvester.	Junior	Toledo
Williams, Benjamin Harrison,	Junior	Columbus
Williams, Edith,	Senior	Lockbourne
Williams, Lee F.,	Freshman	Coshocton
Williams, Marguerite,	Sophomore	Columbus
Williams, Regina,	Freshman	Columbus
Williamson, Francis Orrin,	Senior	Lancaster
Wilson, Halbert M.,	Senior	Barnesville
Wilson, John Boynton,	Sophomore	Steubenville
Wilson, Ray,	Freshman	Pandora
Wilson, Ruth Oleta,	Senior	Columbus
Wiltberger, Virginia Brady,	Freshman	Columbus
Winwood, George M., Jr.,	Junior	Springfield
Withrow, Albert William,	Sophomore	Philadelphia, Pa.
Wittenmyer, James Graham,	Senior	Peebles
Wolcott, Helen Winchell,	Freshman	Columbus
Wolf, Ida Liona,	Special	Columbus
Wood, Nellie Eagle,	Soohomore	Columbus
Woodruff, Julia Rosalie,	Freshman	Columbus
Wright, Francis Ware,	Freshman	Cadiz
Wright, Martha Lucille,	Freshman	Columbus
Wright, William E.,	Freshman	Toledo
Yoh, Harry B.,	Junior	Van Wert
Zapp, Olga Augusta,	Freshman	Columbus
Zentmyer Ruth Katharine,	Freshman	Newark
Zwayer, Byron,	Freshman	Canal Winchester

COLLEGE OF EDUCATION

GRADUATE STUDENTS

Name	*Home Address*
ARMSTRONG, EDNA, B. Ph.	Columbus
BRADFORD, GRACE EMMA, B. A.	Columbus
FEIEL, IDA LOUISE, B. Ph.	Columbus
HEDRICK, ELI C.	Canal Winchester
JENNINGS, WILLIAM SILVER, B. A.	Eaton
LAIZURE, GRANT ARLINGTON, B. Sc.	Dennison
OMAN, ROY HEDGES, B. Sc.	Ashville
SHAW, RAYMOND BERT, B. A.	Yellow Springs
SKIMMING, WILBERT BOBB, B. Sc.	Columbus

UNDERGRADUATES

Name	*Rank*	*Home Address*
Artz, Bertha,	Junior	Plain City
Baird, Edith May,	Special	Columbus
Bargar, Lucia Lee,	Sophomore	Columbus
Beard, Mary Violet,	Freshman	Columbus
Bright, Laura,	Junior	Columbus
Burton, Ella M.,	Junior	Columbus
Byers, Ruby Marie,	Junior	Toledo

Name	*Rank*	*Home Address*
Clover, Nannie,	Special	Hilliards
Danenhower, Dorothy,	Special	Columbus
Dean, Wilbur Spencer,	Senior	Warsaw
Denig, Elizabeth Seitz,	Special	Columbus
Echols, Corinne Louise,	Junior	Columbus
Fischer, Dorsie Elizabeth,	Special	Columbus
Gothlin, Myrtle Jean,	Junior	Columbus
Ketler, Marie,	Special	Benkelman, Neb.
MacDonald, Annie Leslie,	Sophomore	Columbus
MacDonald, Mabel Clare,	Freshman	Celina
Maetzel, Clara,	Special	Columbus
Newton, Elsie Jennie,	Junior	Dayton
Nichols, Rell Hunt,	Senior	Etna
Peterson, John O.,	Special	Columbus
Pierce, George S.,	Special	Newton Falls
Rawie, Gerda Katrina,	Senior	Columbus
Reese, Katherine E.,	Senior	Alexandria
Rose, Curtis Lynn,	Junior	Duvall
Scott, Carolyn L.,	Special	Columbus
Sergeant, Maude G.,	Special	Rudd, Iowa
Shrader, John Calvin,	Special	West Newton, Pa.
Singleton, Anna,	Senior	Columbus
Smiley, Grace F.,	Senior	Columbus
Smith, Mary Bell,	Junior	Columbus
Steeb, Clara E.,	Senior	Medina
Swickard, Olive Evangeline,	Senior	Columbus
Walter, Frances Cameron,	Senior	Columbus
Welling, Florence Edna,	Junior	Columbus
Whims, Edith Marie,	Senior	Columbus
Whims, Letta May,	Senior	Columbus

COLLEGE OF ENGINEERING

GRADUATE STUDENTS

Name	*Home Address*
BUCHER, CLAUDE VICTOR, C. E. Graduate	Columbus
FISHER, CHARLES SAMUEL, M. E., Graduate	Flushing
LAWRENCE, GERALD PEIRCE, M. E., Graduate	Columbus
RIGDON, CARL, M. E.	Wapakoneta
ROUSH, LEROY, M. E. in E. E.	Canton

UNDERGRADUATES

Name	*Course*	*Rank*	*Home Address*
Abbott, Ralph Watterson,	Engr.	Freshman	Indianapolis, Ind.
Abbott, Wendell Holmes,	Engr.	Freshman	Columbus
Abbott, Willard Pemberton,	C. E.	Senior	Bethel
Agner, Frank Orsone,	E. E.	Senior	Columbus
Agner, Owen B.,	M. E.	Senior	Columbus
Agosto, Manuel,	Engr.	Freshman	San Juan, P. R.

Name	*Course*	*Rank*	*Home Address*
Aiken, Charles Renwick, I. A.	Short	First	Belle Center
Albaugh, Hugh Walter	Engr.	Freshman	Phoneton
Albery, Duane Faxon,	Cer.	Senior	Columbus
Albing, Henry William,	E. E.	Sophomore	Buffalo, N. Y.
Albright, Arthur S.,	E. E.	Junior	Milwaukee, Wis.
Aler, Lester Charles,	E. M.	Sophomore	Columbus
Alexander, Howard, Cer.	Short	Second	Rushsylvania
Alexander, Paul Edwin,	C. E.	Junior	Toledo
Allen, Francis Boutelle,	Engr.	Freshman	Columbus
Allen, Harry Gilliam,	Arch.	Junior	Columbus
Allen, Harry Preston,	E. M.	Sophomore	Painesville
Allen, John Francis,	Engr.	Freshman	Grand Rapids, Mich.
Allen, Lee Emel,	M. E.	Sophomore	Lowellville
Allen, Maurice Llewellyn,	Engr.	Freshman	Greenfield
Alsdorf, George William,	E. M.	Sophomore	Utica
Altmaier, Stark Julius,	Engr.	Freshman	Columbus
Alvarez, Diego,	Engr.	Freshman	Dayton
Anderson, Edward Monroe,	C. E.	Junior	Bellaire
Anderson, Seldon Bryce,	Engr.	Freshman	Millersburg
Anderson, Adelbert E.,	M. E.	Senior	Cleveland
Arbogust, Charles Oren,	Cer.	Junior	Xenia
Arms, Walter Ray,	Engr.	Freshman	Columbus
Armstrong, Kyle Wagner,	Engr.	Freshman	Kenton
Armstrong, Micajah Russell,	E. E.	Sophomore	Damascus
Armstrong, Ray Oliver,	Chem.	Sophomore	Marietta
Arnold, Clayton Ray,	Eng.	Freshman	Ilion, N. Y.
Arnold, George A.,	E. E.	Junior	West Unity
Arthur, Glenn R.,	E. E.	Sophomore	New Vienna
Assel, Walter John,	Engr.	Freshman	Dayton
Atkinson, Harry Victor,	Chem.	Sophomore	Van Wert
Atkinson, Herbert Spencer,	C. E.	Sophomore	Fremont
Augustine, Walter Orr,	Engr.	Special	Salem
Avisado, Pastor,	M. E.	Senior	Vigan, P. I.
Backman, Stanley George,	M. E.	Sophomore	Cincinnati
Bagford, Harold Elbert,	Engr.	Freshman	Troy
Bailey, George Clinton,	Engr.	Freshman	Beaver
Bailey, Hazel Harding,	M E.	Junior	Beloit
Bailey. William Jesse,	M. E.	Senior	Damascus
Bain, Edgar Collins,	Engr.	Freshman	Marion
Baird, Charles Melville,	Engr.	Special	Salesville
Baker, Cleo,	Engr.	Freshman	Arcanum
Baldwin, Mason Leroy,	C. E.	Sophomore	Marysville
Balph, Harold Russell,	Arch.	Sophomore	New Castle, Pa.
Balyeat, Forrest,	E. E.	Senior	Van Wert
Banks, Thomas Dent.	M. E.	Junior	Newcomerstown
Barr, Dean,	C. E.	Sophomore	Batavia
Barr, George Good,	Engr.	Freshman	Avon
Barrett, William Mitchell,	E. E.	Sophomore	Hillsboro
Barricklow, Henry S.,	Engr.	Freshman	Columbus

Name	*Course*	*Rank*	*Home Address*
Barrington, Walter Davies,	E. M.	Senior	Columbus
Barstow, Eugene Duston,	C. E.	Sophomore	Bryan
Bascom, Philip P.,	Chem.	Sophomore	Lockwood
Bascom, Reynolds Ralph,	Engr.	Special	Greensburg
Baughman, Ray L.,	E. E.	Seniors	La Rue
Beatty, Paul Hoobler, I. A.	Short	First	Cleveland
Bechberger, Earl Herbert,	M. E.	Sophomore	Norwalk
Beckett, Elliott W.,	Engr.	Freshman	Norwood
Beckwith, Carl Fonner,	Cer.	Junior	Columbus
Bee, Walter Doddridge,	M. E.	Junior	Columbus
Beebe, Philip Sidney,	Chem.	Junior	Columbus
Behler, Glenn W.,	Engr.	Freshman	Lowell, Mich.
Bell, Harry L.,	E. M.	Sophomore	Bradford
Bell, Howard Fred,	C. E.	Senior	Windsor
Bell, Howard Hinsdale,	E. E.	Junior	Columbus
Belt, Homer Franklin,	Engr.	Freshman	Pleasantville
Benedum, John,	C. E.	Sophomore	Leesville
Benham, Eugene Thirlestane,	Cer.	Sophomore	Columbus
Bennett, George Edmond,	E. E.	Sophomore	Grand Rapids, Mich.
Benninghofen, Mark,	M. E.	Senior	Hamilton
Benton, Alva H.,	Cer.	Sophomore	Columbus
Bergman, Lorna Judson,	Engr.	Freshman	Columbus
Berk, Elmore R.,	E. E.	Sophomore	Seven Mile
Berlin, Fred M.,	C. E.	Senior	Columbus
Beucler, Bert,	C. E.	Junior	Stryker
Biggert, Faber,	E. E.	Sophomore	West Jefferson
Black, Irving H.,	E. M.	Sophomore	Springfield
Blackburn, Joseph Ellis,	Cer. Short	Second	Columbus
Blazezewicz, Stanislaw Josef,	Engr.	Freshman	Lublin, Poland
Blickensderfer, Frank C.,	E. M.	Sophomore	Canal Dover
Bliven, Charles Edgar,	M. E.	Senior	Columbus
Boerstler, Elton Stanley,	Engr.	Freshman	Barberton
Bolton, Harry R.,	C. E.	Junior	Findlay
Bond, Allen,	E. E.	Senior	Dayton
Bone, Hugh,	M. E.	Sophomore	Columbus
Bonnet, Edwin S.,	E. M.	Senior	Columbus
Bonnet, Frank H.,	M. E.	Senior	Columbus
Boonien, Mendel Michael,	Engr.	Special	Philadelphia, Pa.
Booth, William Kurtz,	C. E.	Senior	Columbus
Boreman, Robert Wells,	Engr.	Freshman	Middlebourne, W. Va.
Born, Dennis Russell,	C. E.	Junior	Gnadenhutten
Bornhorst, August Henry,	M. E.	Junior	St. Marys
Bosworth, Rhey Codding,	Cer.	Special	Manly, Iowa
Bowers, James Homer,	E. E.	Sophomore	Akron
Bowman, Millard Kellerman,	C. E.	Senior	Columbus
Boyer, Frederick G. L.	C. E.	Sophomore	Dayton

Name	*Course*	*Rank*	*Home Address*
Bradshaw, Charles Oakley,	M. E.	Sophomore	Columbus
Brand, Otto Albert,	C. E.	Sophomore	Findlay
Brashear, George,	E. M.	Sophomore	Columbus
Bray, Archie,	Cer.	Sophomore	Helena, Mont,
Brennan, George William	Engr.	Freshman	Dayton
Brightman, Harrison Morton,	M. E.	Junior	Cleveland
Brightman, Howard Latham,	M. E.	Junior	Cleveland
Brightman, Joseph Herbert,	M. E.	Junior	Cleveland
Bringardner, Mart Patrick,	Engr.	Freshman	Columbus
Brinker, Harry Weaver,	Engr.	Freshman	Ashville
Brinkerhoff, George Lockwood,	Engr.	Freshman	Mansfield
Bristow, William Grover,	C. E.	Sophomore	Mansfield
Brown, George H.,	Cer.	Senior	Covington
Brown, Harvey Foreman	C. E.	Junior	Toronto
Brown, Ralph D.,	C. E.	Junior	Oxford
Brown, Raymond G.,	C. E.	Senior	Washington C. H.
Brown, Roy Atkinson,	E. E.	Junior	Cleveland
Brumbaugh, Clark,	C. E.	Junior	Canton
Brunner, Frederick Raymond,	C. E.	Junior	Columbus
Bryce, Chalmers Kendall,	Cer.	Senior	Columbus
Bryson, James Harty,	Engr.	Special	Atlanta, Ga.
Buck, Orson Wayne,	E. M.	Sophomore	Columbus
Bumgardner, Karl John,	E. E.	Sophomore	Lancaster
Burkley, Clem Joseph,	Cer.	Sophomore	Columbus
Burrell, Gene,	Engr.	Sophomore	New Lexington
Bush, Kent Grant,	Engr.	Special	Ancho, N. Mex.
Bushnell, Earl.	Engr.	Freshman	Mansfield
Bushnell, Warner,	E. M.	Junior	Mansfield
Butler, William James,	E. E.	Junior	Columbus
Byron, John Edward,	Min. Sh't	First	Murray City
Calland, O. Glen,	E. E.	Senior	Bellefontaine
Callander, Ira Clinton,	Min. Sh't	First	Bellaire
Campbell, Thaddeus C.,	Engr.	Freshman	Maysville, Ky.
Caris, Ivan Burdell,	M. E.	Junior	Cardington
Carpenter, Charles Gilbert,	Engr.	Freshman	Mentor
Carpenter, Oliver Karl,	Engr.	Freshman	Lima
Carpenter, Paul Van Pelt,	Engr.	Special	Martin's Ferry
Carr Charles Vincent,	E. E.	Junior	Sugar Grove
Carr, Edmund Cone, Jr.,	Cer.	Sophomore	Coshocton
Case, William T.,	C. E.	Junior	Poland
Caywood, Charles M.,	Engr.	Freshman	Somerset
Caywood, Thomas G.,	Engr.	Freshman	Somerset
Chase, Don Landenberg,	C. E.	Sophomore	Ashland
Cheeseman, Redick C.,	M. E.	Sophomore	Grove City, Pa.
Cheney, Merritt Brooke,	Cer.	Senior	Mechanicsburg
Chester, Walter D.,	Arch.	Senior	Rome
Christman, Emanuel M.,	I. A. Sh't	First	Galion
Claflin, Walter Neville,	Cer.	Senior	Cleveland

Name	*Course*	*Rank*	*Home Address*
Clare, Robert Linn,	Engr.	Freshman	Portsmouth
Clark, Gideon Thomas, Jr.,	C. E.	Sophomore	London
Clark, Herbert,	Engr.	Freshman	Woodstock
Clayton, Clarence Lauren,	Engr.	Freshman	Upper Sandusky
Clingman, Charles Harvey,	M. E.	Junior	Dayton
Coblentz, Ralph W.,	E. M.	Sophomore	Dayton
Cochran, Rae Eugene,	M. E.	Sophomore	Columbus
Coe, Harry Dean,	C. E.	Senior	Columbus
Coe, John Henry,	Cer.	Senior	Columbus Grove
Cole, Bruce Albert,	Engr.	Special	New Comerstown
Coles, Henry LeRoy,	E. E.	Sophomore	Springfield
Colley, Frank Johnston,	Engr.	Special	Birmingham
Collier, Harold Rutherford,	Engr.	Freshman	Greenfield
Colwell, Donald Stewart,	Arch.	Sophomore	Urbana
Comp, Ray Oswald,	I. A. Sh't	First	Dorset
Compton, Robert Burns,	Engr.	Freshman	Dayton
Conard, Donald Reed,	C. E.	Sophomore	Centerburg
Congdon, Carl Elbert,	Engr.	Freshman	Dayton
Connable, Howard Paige,	Engr.	Freshman	Springfield
Connor, Charles Ed.,	C. E.	Special	Columbus
Conrad, Edward George,	Engr.	Freshman	Troy
Conradt, Theodore Julius,	E. E.	Special	Montrose, Iowa
Cook, James S.,	C. E.	Junior	Salem
Cook, Jerome McCullough,	M. E.	Junior	Springfield
Cook, Rossel Loret,	C. E.	Junior	Bellefontaine
Cookson, Alfred Burl,	Chem.	Sophomore	Roseville
Cooley, George H.,	C. E.	Sophomore	Niagara Falls, N. Y.
Cooper, Guy,	Engr.	Freshman	Kingston
Cortleyou, Carl Walling,	M. E.	Sophomore	Jefferson
Cosgray, Mark Constant,	E. E.	Junior	Carey
Cosgrove, Jacob Ambrose, Min.	Short	Second	Frostburg, Md.
Cosgrove, Karl M.,	C. E.	Sophomore	Cambridge
Cowgill, Paul Everett,	M. E.	Junior	Columbus
Cowser, Harold Edwin,	Engr.	Freshman	Columbus
Cox, Charles Blaine,	Engr.	Special	Brilliant
Cox, George William,	C. E.	Junior	Trinway
Cox, Herbert McDowell,	Engr.	Freshman	Steubenville
Cox, Merlin Lee,	E. E.	Sophomore	Columbus
Cozad, Samuel Carver,	M. E.	Junior	Harlansburg, Pa.
Cragg, Shirley R.,	E. M.	Senior	Mt. Healthy
Craig, Ora J.,	C. E.	Junior	Greenville
Crawford, Harry G.,	E. E.	Junior	Shelby
Crites, Joe,	Engr.	Freshman	Lakeside
Crook, Charles Lauren	Engr.	Freshman	Youngstown
Crouch, Robert Eugene,	E. E.	Sophomore	Newark
Crow, Charles Adna,	M. E.	Junior	Xenia
Culler, William Marion,	E. E.	Senior	Lucas
Curran, Carleton Edgar,	Engr.	Freshman	New Lexington
Darby, Hayes,	Engr.	Freshman	Worthington
Davis, Forrest William,	E. E.	Sophomore	Bryan

Name	*Course*	*Rank*	*Home Address*
Davis, George Elliott,	E. M.	Sophomore	Cleveland
Davis, William Joseph,	Engr.	Freshman	Columbus
Dean, Charles Augustus,	Cer.	Sophomore	Waverly
Deibel, Durns John,	C. E.	Sophomore	Columbus
De la Pena, Guillermo, B. Sc.,	C. E.	Sophomore	Guadalajara, Mexico
Dempster, Sidney White,	Engr.	Freshman	Uhrichsville
Denmead, Walter Angus,	Cer.	Junior	Columbus
Dibert, Emery,	Engr.	Freshman	Urbana
Di Cio, Alfredo Alberto,	E. E.	Sophomore	Concordia, A. R.
Dillahunt, George W.,	Engr.	Freshman	Springfield
Dingledine, Harold Ferguson,	Engr.	Freshman	Waverly
Dock, Howard,	Chem.	Sophomore	Cincinnati
Doelker, Theodore Frederick,	Arch.	Sophomore	Columbus
Dolle, Simeon Edward,	Engr.	Freshman	Columbus
Dollison, Arthur Howell,	E. E.	Senior	Pleasantville
Donley, Ford,	I. A.	Senior	Cleveland
Dorchester, Paul,	M. E.	Sophomore	Pittsburg, Pa.
Dotter, Merion Julius,	Engr.	Freshman	Columbus
Doty, Preston,	M. E.	Junior	Columbus
Douglass, James Lawrence,	Cer.	Junior	Columbus
Downing, Ralph Hooper,	C. E.	Senior	Lima
Drackett, Philip W. Jr.,	Cer.	Junior	Cincinnati
Dressel, Charles Henry,	Min. Sh't	Second	Dayton
Dressler, Harvey Jacob,	C. E.	Senior	Dayton
Dun, Carroll Thurman,	Cer.	Sophomore	Columbus
Dunnick, John Franklin,	Engr.	Freshman	Columbus
Dunsford, Enson Rubidge,	E. M.	Sophomore	Columbus
Durfey, George Jackson,	C. E.	Sophomore	Williamsburg, Va.
Durkee, Ralph Henry,	Engr.	Freshman	Conneaut
Durrell, Royal Sibley.	C. E.	Sophomore	Cincinnati
Dutt, Narendra Nath,	Cer.	Junior	Bengal, India
Dye, Hanford Anderson,	M. E.	Junior	Columbus
Dyer, Roy Eugene,	Engr.	Freshman	Woodsfield
Earheart, John Carlisle,	M. E.	Senior	Hamilton
Eberle, John Joseph,	Cer.	Sophomore	Columbus
Ebersbach, Walter F.,	E. E.	Junior	Pomeroy
Ebinger, David Hugo,	M. E.	Junior	Columbus
Eby, Earl Ellsworth.	E. E.	Sophomore	Dayton
Eckley, Fred R.,	M. E.	Sophomore	Carrollton
Edgerton, Lloyd B.,	M. E.	Senior	Tacoma
Edwards, Francis M.,	Engr.	Freshman	Texarkana, Ark.
Ehrlich, Philip H.,	M. E.	Sophomore	Ironton
Ehrman, George Lewis,	C. E.	Junior	Chicago
Eichelberger, Chester Grover,	Engr.	Freshman	Dayton
Eicher, Albert Michael,	Engr.	Freshman	Cincinnati
Eldridge, Charles Hodges,	E. M.	Senior	Columbus
Elliot, Amer Fay,	E. E.	Junior	Milford Center

Name	*Course*	*Rank*	*Home Address*
Elliott, Edward Patrick,	Min. Sh't	First	Columbus
Ellstrom, George Oliver,	E. M.	Junior	Fitchburg, Mass.
Ellsworth, Carl Elmyrt,	Engr	Freshman	Gallipolis
Emery, Frank Edward	Engr.	Special	Columbus
Emrick, Ambrose Alfra,	M. E.	Sophomore	Germantown
Evans, Glenn,	Engr.	Freshman	Greenville
Evans, Hugh McLaren,	Engr.	Freshman	Defiance
Evans, Russell Harrison,	M. E.	Sophomore	Columbus
Ewing, Max Clark,	E. E.	Senior	Centerville
Eyman, Werter Scott	C. E.	Senior	Columbus
Fackler, Ralph C.,	Engr.	Freshman	Dayton
Faust. B. Webster,	E. M.	Senior	Canton
Faxon, Isaac Davis,	C. E.	Sophomore	Elyria
Featherly, Emmett Ray,	Arch.	Sophomore	Niagara Falls, N. Y.
Fergus, Joseph Lester,	Engr.	Freshman	Hamilton
Ferguson, Robert Clark,	E. E.	Sophomore	Columbus
Field, Albert Waterman,	Engr.	Freshman	Columbus
Field, Wooster Bard,	Arch.	Sophomore	Columbus
Filing, Paul John,	Engr.	Freshman	Columbus
Finley, Guy C.,	C. E.	Junior	Pleasant City
Fisher, George Philip,	Cer.	Sophomore	Columbus
Fisher, Morris B.,	I. A. Short	First	Grand Rapids, Mich.
Foerster, George Bauer,	E. E.	Junior	Columbus
Fogle, Karl Rexford,	Engr.	Freshman	Troy
Forman, Alfred Melvin,	E. E.	Sophomore	Springfield
Foster, Orie Floyd,	M. E.	Sophomore	Columbus
France, Laurel Edson,	M. E.	Sophomore	Columbus
Frank, Carl Melvin,	Arch.	Sophomore	Columbus
Frank, Clarence H.,	E. E.	Junior	Columbus
Frank, Sumner B.,	Chem.	Sophomore	Zanesville
Frankeberger, Earl,	Engr.	Freshman	Mansfield
Frazier, Forrest Fay,	C. E.	Junior	Sidney
Freeman, Forest W.,	Engr.	Freshman	Chillicothe
French, Carl R.,	Engr.	Freshman	Salem
Frevert, Robert Andrew,	M. E.	Junior	Dayton
Friedman, Edgar Harrison,	E. E.	Sophomore	Circleville
Fritz, Howard Earl,	Engr.	Freshman	Barberton
Fulton, Charles Phillis,	M. E.	Sophomore	Cambridge
Fyke, Clifford,	Engr.	Freshman	West Unity
Gallegos, Ramon, Jr.,	Arch.	Sophomore	Guayaquil, Ecua.
Galloway. Ralph Elton,	Engr.	Freshman	Columbus
Galloway, Robert Mitchell,	Engr.	Freshman	Eaton
Garber, Frederick Rummel,	E. E.	Junior	Pleasant Ridge
Gardner, Ross Vivian,	E. E.	Junior	Powell
Gascoigne, George,	C. E.	Senior	Toledo
Gehres, Wilmer Gehres,	C. E.	Sophomore	Waverly
Geib, Jay Russell,	E. E.	Sophomore	Middlebranch
Gerard, Harley J. A.,	E. E.	Sophomore	Greenville
Gibbons, Charles Edward,	Engr.	Freshman	Celina
Gibson, Alfred Ernest,	M. E.	Senior	Cleveland
Gibson, Millard F.,	Cer.	Senior	Columbus

Name	*Course*	*Rank*	*Home Address*
Gilbert, Edward James,	M. E.	Senior	Sandusky
Gilbert, Rexford Whitney,	Engr.	Freshman	Mansfield
Giles, Alexander,	Cer. Short	First	Morral
Gillig, John Thornton,	Arch.	Senior	Decatur, Ind.
Glore, Winfield Scott,	Engr.	Freshman	Mt. Vernon
Glunt, Stanley,	E. E.	Senior	Union City, Ind.
Gordon, Chester Saylor,	Engr.	Freshman	Mt. Victory
Gordon, Thomas Henry,	C. E.	Sophomore	Parkersb'g, W.Va.
Gramatges, Gabriel Ramon,	Engr.	Freshman	Havana, Cuba
Grant, Charles C.,	M. E.	Senior	Akron
Grant, Ernest Holman,	Chem.	Junior	Kennedy
Grant, William Henry,	M. E.	Sophomore	Circleville
Gray, Clifford Fell,	M. E.	Special	Lorain
Gray, George Francis,	E. E.	Senior	Wheelersburg
Gray, Guy Willoughby,	C. E.	Senior	Columbus
Gray, Hugh Gordon,	E. E.	Sophomore	Mansfield
Green, John Carl,	E. E.	Junior	Shepard
Greenamyer, Merle R.,	E. E.	Junior	Leetonia
Gregg, Robert DeMoss,	Chem.	Sophomore	Genoa
Grener, August T.,	E. E.	Junior	Camp Chase
Griesinger, Frank Shepard,	Engr.	Freshman	Medina
Griesinger, Walter,	E. M.	Sophomore	Mansfield
Griffin, Fred S.,	M. E.	Junior	Copley
Groner, Clyde Sterling,	E. E.	Junior	Leetonia
Gross, Lawrence Henry,	Engr.	Freshman	Dayton
Gruver, Floyd Emery,	Engr.	Freshman	Worthington
Gue, George Erskine T.,	Cer.	Sophomore	New Lexington
Gue, Homer Virgil,	Clayworking	First	New Lexington
Guillaudeu, Arthur,	Chem.	Junior	Madisonville
Gupta, Dhirendra Chandra,	Engr.	Freshman	Narayanganj, India
Hadden, Clyde C.,	C. E.	Senior	Painesville
Haldy, Arthur John,	Engr.	Freshman	Camp Chase
Hale, Kenneth,	E. E.	Junior	Columbus
Hall, Herman Allen,	Cer.	Junior	Plain City
Hammond, Charles,	Engr.	Freshman	Howard
Hammond, Charles Baxter,	Engr.	Freshman	Detroit, Mich.
Hammond, John Edgar,	Engr.	Freshman	Smithfield
Hansberger, Claude Raymond,	Arch.	Sophomore	Columbus
Hardy, Joe,	E. E.	Sophomore	Corning
Harned, Horace H.,	Min. Short	First	Ely, Nev.
Harsh, Robert Stemple,	Arch.	Sophomore	Cleveland
Hart, Laurance Hastings,	C. E.	Junior	Cleveland
Hartman, Oscar Rudolph,	M. E.	Junior	Woodville
Hartman, Otto Rudolf Henry,	E. E.	Junior	Woodville
Hartzell, Ross Calvin,	E. E.	Junior	Troy
Harvey, George Henry,	C. E.	Junior	Columbus
Hasselback, Vincent Lawton,	Engr	Freshman	Fremont
Hatfield, Gideon Dwight,	M. E	Sophomore	Fostoria
Hauck, Ernst,	Engr.	Freshman	Columbus

Name	*Course*	*Rank*	*Home Address*
Hauck, Fred Kolb,	Chem.	Sophomore	Springfield
Haverfield, George Melvin,	E. M.	Sophomore	Cadiz
Hawk, Leslie Lewis,	Engr.	Freshman	Columbus
Hawkins, Floyd Le Roy,	C. E.	Junior	Blanchester
Hay, Earl Edwin,	C. E.	Junior	Osnaburg
Heald, Harland R.,	I. A. Sh't	First	Columbus
Heath, Harold Theodore,	E. E.	Sophomore	Cuyahoga Falls
Hecathorn, Otha,	Cer. Short	Second	West Sonora
Hegele, August Jacob,	C. E.	Senior	Columbus
Heitmann, Albert Henry,	E. E.	Senior	Columbus
Helling, Harry A.,	C. E.	Junior	Gloversville
Helpbringer, James Nelson,	E. E.	Sophomore	Glencoe
Henderson, Chester Ellsworth,	Cer.	Junior	Maynard
Henderson, Ross Love,	Arch.	Sophomore	Delaware
Henemann, Henry Clay,	Min. Sh't	First	Columbus
Henkle, Christian,	Min. Short	First	Gallipolis
Henry, Charles Curtis,	Engr.	Freshman	Columbus
Henry, Clarence Bertram,	Engr.	Freshman	Columbus
Henry, Frederick Moore,	Engr.	Freshman	New York City
Herbert Fred M.,	C. E.	Sophomore	Columbus
Herrick, Charles,	C. E.	Junior	Columbus
Hess, Aubrey Emerson,	Engr.	Freshman	Danville
Higgins, Ralph,	Engr.	Freshman	Fayetteville
Higgins, Ray,	Engr.	Freshman	Fayetteville
Hill, Ercell Channing,	Cer.	Sophomore	Middleport
Hill, Lewis Clifford,	E. M.	Sophomore	Columbus
Hill, Raymond Ward,	Arch.	Senior	Willoughby
Hines, Harry Leonard,	Engr.	Freshman	Painesville
Hixson, Charles Randle,	Engr.	Freshman	Columbus
Hobart, Edward Alvah,	Engr.	Freshman	Troy
Hoberg, Harry Henry,	M. E.	Senior	New Bremen
Hoffman, Felix Warren,	C. E.	Junior	Canal Dover
Hoffman, George Jacob,	Engr.	Freshman	Columbus
Hollister, Helen,	Arch.	Sophomore	Galion
Holton, Hamilton Francis,	Engr.	Freshman	Akron
Hopfinger, Harvey,	Engr.	Freshman	Port Clinton
Hopkins, Archie Luman,	M. E.	Junior	Garrettsville
Hoursouripe, Juan,	Engr.	Special	Buenos Aires, A. R.
Howard, Harry W.,	Cer.	Sophomore	Portsmouth
Hubbell, James Davis, Jr.,	E. E.	Sophomore	Columbus
Huffman, Carl Hansen,	Engr.	Freshman	Medina
Huling, Thurman,	Engr.	Freshman	Rosewood
Humphrey, Dwight Elmer,	Engr.	Special	Peninsula
Hurlburt, Lee Robert,	E. E.	Sophomore	Freedom
Huston, Robert Morris,	Engr.	Freshman	Columbus
Hutton, Edward Roland,	Engr.	Freshman	Logansport, Ind.
Hyatt, Edward,	M. E.	Sophomore	Cleveland
Iiams, Guy,	Engr.	Freshman	Findlay
Inagaki, Tada Yoshi,	Engr.	Freshman	Nagoya, Japan
Jackson, Charles Chylon,	Engr.	Freshman	Akron
Jackson, Herbert,	I. A. Short	Second	Hamilton

Name	*Course*	*Rank*	*Home Address*
Jacobs, William MacFarlin,	Cer.	Sophomore	Youngstown
Jay, Clarence Morgan,	Engr.	Freshman	Gibsonburg
Jenkins, Howard LeRoy,	E. E.	Sophomore	Springfield
Jennings, Clair E.,	E. E.	Sophomore	North Fairfield
Johnson, Clarence Lee,	Engr.	Special	Richwood
Johnson, Coleman Albert,	M. E.	Sophomore	Columbus
Johnston, Arthur F.,	C. E.	Sophomore	Fremont
Johnston, Harry A.,	Engr.	Freshman	Covington
Jones, Roscoe C.,	Chem.	Sophomore	Laura
Jossem, Morris,	Engr.	Special	New York City
Judkins, Morton,	M. E.	Junior	Columbus
Jue, Park S.,	Engr.	Freshman	Canton, China
Kahle, Frederick John,	Engr.	Freshman	Cincinnati
Katz, Sidney H.,	Chem.	Senior	Marion
Kautzman, Roy,	E. E.	Sophomore	Columbus
Kegerreis, Roy,	M. E.	Sophomore	Bellevue
Kelso, Erle Roland,	C. E.	Sophomore	Columbus
Kendall, Robert Marsh,	Engr.	Freshman	Columbus
Kendig, Frank A.,	E. E.	Sophomore	Osborn
Kennedy, Earl B.,	Engr.	Freshman	Findlay
Kenny, Richard A.,	Min. Short	First	Elk Garden, W. Va.
Kercher, Henry,	C. E.	Junior	Germantown
Kerr, Charles Henry,	Cer.	Senior	Cleveland
Kidwell, Thomas Guitner,	Engr.	Freshman	Columbus
Kienzle, Frank Philip,	Engr.	Freshman	Columbus
Kilgore, Lester,	Engr.	Sophomore	Canton
King, Arthur F.,	Cer.	Senior	Columbus
King, Clarence Roscoe,	Chem.	Sophomore	Toledo
Kinkead, Robert E.,	Engr.	Freshman	Columbus
Kinnear, Josiah D.,	E. M.	Junior	Columbus
Kinnear, Ralph Edgar,	E. M.	Junior	Columbus
Kinnison, Charles Shadrach,	Cer.	Sophomore	Jackson
Kinzly, Nelson T.,	E. E.	Sophomore	Nevada
Kizer, Aden Rudolph,	Engr.	Freshman	Urbana
Klein, Robert Clarence,	E. E.	Sophomore	Apple Creek
Kleymeyer, Frederick Alfred,	Cer. Short	First	Henderson, Ky.
Klinzing, Louis H.,	Engr.	Special	Rochester, N. Y.
Klyne, Paul S.,	E. M.	Senior	Deerfield
Kneisley, Harry L.,	E. E.	Sophomore	Troy
Knight, Abner Richard,	E. E.	Senior	Columbus
Knight, Harry Clark,	Chem.	Senior	Columbus
Knight, John S.,	C. E.	Junior	Attica
Knollman, Enno Paul,	Engr.	Freshman	Columbus
Knollman, Harry John,	Engr.	Freshman	Columbus
Knox, Wilson Homer,	Engr.	Freshman	Columbus
Koons, George Henry,	M. E.	Sophomore	Columbus
Koontz, George Franklin,	Engr.	Freshman	Columbus
Kramer, Donald S.,	E. E.	Senior	Lancaster
Krapp, Russell M.,	Engr.	Freshman	Springfield
Krauss, George Fieser,	Engr.	Freshman	Columbus
Kromer, Clarence Fred,	C. E.	Sophomore	Columbus

Name	*Course*	*Rank*	*Home Address*
Kromer, Edward,	Engr.	Freshman	Columbus
Krumm, Samuel Zettler,	Engr.	Freshman	Columbus
Kugler, Howard Miller,	Engr.	Freshman	Cincinnati
Kumler, Ralph Collier,	Engr	Freshman	Worthington
Kunj, Lal,	Engr.	Freshman	Lahore, India
La Crone, Pearl M.,	E. E	Sophomore	Ezra, Miss.
Lake, Thomas Emil,	C. E	Junior	Hermosillo, Mexico
Lakin, Harold Reed,	Engr	Freshman	Columbus
Lamb, Lyman C.,	C. E	Sophomore	East Liberty
Lamberger, Louis Jacob,	E. E.	Sophomore	Dennison
Lambert, Walter Oscar,	M. E	Sophomore	Germantown
Lammer, Hannes F. W.,	I. A. Sh't	First	Cleveland
Lang, Henry Thomas,	Engr.	Freshman	Fremont
Lapp, Leslie W.,	Engr.	Freshman	Stephentown, N.Y.
La Rue, Luther,	C. E.	Sophomore	La Rue
Lauck, Emerson,	C. E.	Sophomore	London
Laux, Philip John,	M. E.	Sophomore	Columbus
Lawrence, Edwin Gordon Gibbs,	Engr.	Freshman	Cincinnati
Lawrence, Ralph Clark,	E. M.	Sophomore	Dayton
Lee, Hugh Bertram,	Engr.	Freshman	Ashley
Lee, Walter Scott,	C. E.	Junior	Harlem Springs
Lee, William,	Engr.	Freshman	Greenwich
Lee Feaver, James Harrison,	C. E.	Sophomore	Morrisville, N.Y.
Legg, Karl Wareham,	Engr.	Freshman	Columbus
Lehman, Raymond D.,	C. E.	Sophomore	Columbus
Leinbach, Heber	E. E.	Sophomore	Rossville, Ga.
Leonard, Theodore, Jr.,	Engr.	Freshman	Columbus
Leslie, George Clark,	E. M.	Sophomore	Gates Mills
Levering, Howard Allen,	E. M.	Junior	Mt. Vernon
Levering, Russell Edgar,	M. E.	Sophomore	Mt. Vernon
Lewis, David William,	Engr.	Freshman	Columbus
Lewis, Robert M.,	C. E.	Sophomore	Cleveland
Lewis, Thomas Albert,	M. E.	Senior	Martin's Ferry
Liebich, Arthur T.,	M. E.	Sophomore	Bucyrus
Linch, Harry Albert,	E. M.	Sophomore	Steubenville
Lind, Louis Joseph,	Cer.	Senior	Columbus
Lintner, Herman,	Engr.	Freshman	Ironton
Loew, Charles Frederick,	M. E.	Sophomore	Lakewood
Logue, Glenn Robert,	Engr.	Freshman	Conneaut
Lok, Karl Henry,	M. E.	Sophomore	Toledo
Longenecker, Hilton Lowry,	Cer.	Sophomore	Dayton
Longworth, Clyde Bronson,	E. E.	Senior	Van Wert
Loreaux, William D.,	Chem.	Junior	East Akron
Lowe, John Phillips	Engr.	Freshman	Cleveland
Lyman, William Johnston,	E. M.	Sophomore	Knoxville, Tenn.
Lynch, Harry Clifton,	Engr.	Freshman	Mansfield
McAfee, Dan Shields,	E. M.	Sophomore	Cleveland
McAllister, Harold Alanson,	E. M.	Senior	Columbus
McCafferty Thaddeus,	E. M.	Junior	Washington C. H.
McCann, James S.,	Engr.	Freshman	Junction City

Name	*Course*	*Rank*	*Home Address*
McCartney, John Vinton,	E. E.	Sophomore	Tyrrell
McClain, Blanchard,	Engr.	Freshman	Wellsville
McClelland, Cory Chalmer,	M. E.	Sophomore	Findlay
McClung, Harvey Fillmore,	E. E.	Sophomore	Bowling Green
McClure, James Julius,	E. E.	Sophomore	Newark
McConnell, Max J. B.,	Min. Sh't	First	Steubenville
McCoy, Earl W.,	Engr.	Freshman	Sistersville, W. Va.
McDaniel, Charles Hanson,	Engr.	Freshman	Port Arthur, Tex.
McDougal, Taine Gilbert,	Cer.	Sophomore	New Lexington
McFarland, John Edgar,	E. E.	Sophomore	Bridgeport
McFarland, William Norris,	C. E.	Senior	Bridgeport
McGoun, Nelson Lawrence,	M. E.	Sophomore	Kingsville
McGrew, Henry Clark,	Engr.	Freshman	Pleasant Ridge
McGuire, Carl Donham,	Chem.	Sophomore	Columbus
McIlroy, Roy Hardin,	Cer.	Senior	Brookville
McLaughlin, James Dennis,	C. E.	Junior	Hinton, W. Va.
McNabb, James Charles,	E. M.	Sophomore	Fostoria
McNees, Clifford B.,	Cer. Short	Second	Kittanning, Pa.
McQuigg, Charles Ellison,	E. M.	Senior	Ironton
MacDowell, Rollin Fay.	C. E.	Senior	Columbus
Macy, Glenn,	Min. Short	First	Dayton
Maddux, Joseph M.,	Arch.	Sophomore	London
Magee, Bronson Roy,	Engr.	Freshman	Zanesville
Mahurin, Frank R.,	Cer.	Senior	Columbus
Main, Harland Vincent,	Chem.	Senior	Columbus
Maline, John Francis,	Engr.	Freshman	Youngstown
Maloney, Frank Michael,	E. M.	Sophomore	Columbus
Mangold, Edward Gustavus,	Engr.	Freshman	Columbus
Manning, Howard,	Engr.	Freshman	Washington C. H
Marchand, Bruce Frederick,	Cer.	Senior	Wooster
Marco, Ernesto F.,	E. E.	Senior	Entre Rios, A. R.
Mariategui, Isaac,	E. E.	Sophomore	Parana, A. R.
Marple, Miles Walter,	Engr.	Freshman	Columbus
Martin, Arthur Emil,	Arch.	Sophomore	Hamilton
Martin, Donald C.,	Arch.	Sophomore	Ironton
Marting, Amos,	Chem.	Junior	Ironton
Marting, Heber Edwin, B. Sc.,	E. E.	Senior	Ironton
Marty, Benjamin,	Engr.	Freshman	Greenwich
Martz, Joseph Adelbert,	Engr.	Freshman	Greenville
Mayer, Carl Frederick,	Arch.	Senior	Columbus
Mehen, Stephen F.,	Engr	Special	Grand Rapids, Mich.
Menke, Orval Harley,	Engr.	Freshman	Greenville
Mercer, Earl Hempy,	Engr.	Freshman	Brice
Merion, Nathaniel,	Engr.	Freshman	Columbus
Merkle, Theodore,	Engr.	Freshman	East Toledo
Meuche, Karl Serbohm,	Cer.	Junior	Dayton
Meuche, Leon Theodore,	Engr.	Freshman	Dayton
Meyer, Henry J.,	C. E.	Sophomore	Wapakoneta
Mickle, Frank Alexander	Engr.	Freshman	Springfield
Middleton, George Elmer	Engr.	Freshman	Washington, D. C.

Name	*Course*	*Rank*	*Home Address*
Miesse, Leon Walters,	M. E.	Freshman	Lancaster
Millard, Stanley C.,	C. E.	Sophomore	Alliance
Miller, August H.,	Engr.	Freshman	Zanesville
Miller, Chalmers,	C. E.	Senior	Columbus
Miller, Harry Leonard,	Arch.	Sophomore	Newark
Miller, Richard Edward,	M. E.	Senior	North Dover
Miller, Roy Orville,	E. E.	Sophomore	Columbus
Miller, Von Clyde,	C. E.	Sophomore	Columbus
Millikin, Arnould Schelly,	Engr.	Freshman	Hamilton
Millious, Earl Melvin,	C. E.	Sophomore	Fremont
Mills, Elizabeth B.,	Engr.	Special	Madison, Wis.
Minneman, Johannes,	Cer.	Junior	Sidney
Miracle, Harley D.,	Engr.	Freshman	Mt. Gilead
Mitchell, Ralph,	E. E.	Junior	Troy
Mitchell, Russell S.,	C. E.	Sophomore	Wilmington
Montgomery, Fred James,	Engr.	Freshman	Salem
Montgomery, Robert J.,	Cer.	Sophomore	Columbus
Moody, Robert M.,	Engr.	Freshman	Columbus
Moore, Chester Case,	Engr.	Freshman	Columbus
Moore, Delbert Benton,	E. E.	Senior	Columbus
Morelock, Asa,	Arch.	Sophomore	Marysville
Morgan, Guy J.,	M. E.	Junior	Youngstown
Morris, Fred,	Min. Short	Second	Wheeling, W. Va.
Morris, Thomas Bray,	M. E.	Senior	Cincinnati
Morton, Raymond E..	Engr.	Freshman	Barberton
Mosier, Willard Henry,	C. E.	Sophomore	Columbus
Mougey, Harry Clifford,	Chem.	Sophomore	Columbus
Mount, Carroll Hays,	M. E.	Junior	Columbus
Mounts, Joseph Lindsey,	Engr.	Freshman	Morrow
Mueller, William August,	Cer.	Sophomore	Cincinnati
Mullen, Homer Alfred,	Engr.	Freshman	Jefferson
Mumma, George Russell,	Cer. Sh't	Second	Dayton
Murr, Glenn,	M. E.	Sophomore	Dayton
Murray, Gerard A.,	Cer.	Junior	Fort Smith, Ark.
Murray, Harry,	M. E.	Junior	Fort Smith, Ark.
Myers, Albert,	Engr.	Special	Shelby
Myers, C. Howard,	Cer.	Senior	Upper Sandusky
Naimon, Abraham,	C. E.	Junior	New York City
Neal, Harry Elwood,	Cer.	Junior	Lancaster
Neff, Herbert Brannen,	Min. Sh't	Second	Bellaire
Neff, Merle Wayne,	C. E.	Junior	Kingston
Neidhardt, Walter John,	Engr.	Freshman	Spencerville
Neilan, Robert Hill,	Engr.	Freshman	Hamilton
Nelson, Vernon L.,	Engr.	Freshman	Columbus
Nesbitt, George Alexander,	Engr.	Freshman	Columbus
Neville, Patrick,	Engr.	Freshman	London
Nieding, Frank Edward,	E. M.	Senior	Cleveland
Nixon, Horace O.,	C. E.	Junior	Lowellville
Nold, Harry Ellsworth,	E. M.	Senior	Akron
Northrup, Harry Benedict,	E. M.	Junior	Akron
Norton, William Herman,	C. E.	Junior	Columbus
Nussmeyer, Harry Henry,	Engr.	Freshman	New Bremen

Name	*Course*	*Rank*	*Home Address*
Oakes, George Wells,	M. E.	Junior	Little Hocking
Oberhelman, Carl Frederick,	Engr.	Freshman	Norwood
O'Brien, Lawrence Joseph,	E. E.	Sophomore	Columbus
Ochs, Arthur C., Jr.,	Cer. Short	First	Springfield, Minn.
Ogan, John Miles,	Cer.	Junior	McArthur
Ogden, Lester,	Cer.	Junior	Columbus
Ogg, Lester Caris,	M. E.	Sophomore	Mt. Vernon
Ohmart, George Lawman,	C. E.	Senior	Dayton
Ojeda, Agustin M., Jr.,	E. E.	Junior	Buenos Aires, A. R.
Orthoefer, Richard Henry,	Engr.	Freshman	Columbus
Ortman, Fred Benson,	Cer.	Junior	Columbus
Osborn, Howard Williams,	C. E.	Sophomore	Columbus
Osgood, Harry Neely,	Engr.	Freshman	Lima
Overturf, Lewis,	Engr.	Freshman	Westerville
Oviatt, Fayette Lincoln,	E. M.	Sophomore	Hudson
Owen, Robert Dwight,	M. E.	Junior	Granville
Page, Martin Edwin,	Cer.	Sophomore	Chesterland
Paine, John Jenney,	Engr.	Freshman	Columbus
Pape, Lewis Robert,	M. E.	Sophomore	Dayton
Parker, Chalmers McClean,	Engr.	Freshman	Columbus
Parmelee, Gordon N.,	Chem.	Sophomore	Elyria
Payne, Arthur F.,	Engr.	Special	Worthington
Pearce, Bryden,	E. E.	Sophomore	Cadiz
Peat, William McIntyre,	Engr.	Freshman	Sharon
Pence, Forrest K., B. A.,	Cer.	Senior	Columbus
Peoples, Edward Musselman,	C. E.	Sophomore	Medway
Perkins, Lewis Arthur,	M. E.	Junior	Columbus
Perrin, Albert Frederick Charles,	Engr.	Freshman	Columbus
Perry, Glenn L.,	C. E.	Senior	Chillicothe
Perry, William Albert,	E. M.	Sophomore	Columbus
Petrie, Claude Smith,	Engr.	Freshman	Ilion, N. Y.
Pidgeon, Clifford H.,	M. E.	Senior	Goshen
Piedad, Juan,	M. E.	Junior	San Nicholas, P. I.
Pierce, Glen S.,	C. E.	Junior	Columbus
Plumb, Winthrop Gladwin,	M. E.	Sophomore	Columbus
Pohlman, Irwin Henry,	M. E.	Sophomore	New Bremen
Pool, John G.,	C. E.	Junior	Dayton
Porter, Dalton B.,	M. E.	Junior	South Haven, Mich.
Porter, Merton Vincent,	Engr.	Freshman	Youngstown
Portuondo, Juan.	C. E.	Sophomore	Santiago, Cuba
Post, John Harper,	Engr.	Freshman	Washington C. H.
Postle, Halford M.,	E. M.	Junior	Worthington
Potter, Carl Vernon,	C. E.	Senior	Wapakoneta
Potts, Amos Peaslee,	Cer.	Sophomore	Trenton, N. J.
Powell, Donald Adair,	E. M.	Sophomore	Columbus
Powell, Lester M.,	Engr.	Freshman	Findlay
Powers, Raymond C.,	C. E.	Sophomore	Urbana
Pranke, Edward John,	Chem.	Sophomore	Halfway, Mich.
Pratt, Edward Jacob,	E. E.	Sophomore	Delta

Name	*Course*	*Rank*	*Home Address*
Pritz, Wesley Boren,	Chem.	Senior	Dayton
Purinton, Bernard Stanley,	Engr.	Sophomore	East Liverpool
Puryear, William Reid,	Engr.	Special	Franklin, Tenn.
Putnam, David R.,	E. M.	Senior	Columbus
Quevedo, Manuel Garcia de,	E. E.	Sophomore	Guadalajara, Mex.
Quigley, Ford Ferry,	Engr.	Freshman	Fairmount
Quigley, Frank Patrick,	Engr.	Freshman	Sistersville, W.Va.
Quimby, John Calvin,	Engr.	Freshman	Blaine
Rainey, Lloyd Blair,	Cer.	Junior	Mansfield
Ramsey, Ernest Cope,	E. M.	Senior	Columbus
Randall, John L., B. S..	C. E.	Sophomore	Westerville
Randles, Quincy,	C. E.	Sophomore	Warsaw
Rashid, Mahomet Harson,	Cer. Short	First	Chittagong, India
Rea, Abel Stephen,	Cer.	Senior	Bellefontaine
Rea, Bernard Johnson,	C. E.	Sophomore	West Mansfield
Reel, Herbert W.,	E. M.	Junior	Columbus
Rees, Thomas A.,	Cer.	Sophomore	Pittsburg, Pa.
Reese, Joseph D.,	E. E.	Sophomore	Massillon
Reichard, Harry Francis,	Engr.	Freshman	Columbus
Reichelderfer, Evan W.,	Arch.	Sophomore	Circleville
Reichelderfer, Levi C.,	Engr.	Freshman	Lima
Reid, Stanley L.,	Engr.	Freshman	Eaton
Reimer, Clarence Carl,	Engr.	Freshman	Hamilton
Reinhold, Harry Edmont,	Engr.	Freshman	New Philadelphia
Revoredo, Caesar Solari, B. S.,	C. E.	Junior	Lima, Peru
Rice, Horace Thirkield,	Engr.	Freshman	Sidney
Richards, Clare A. J.,	C. E.	Senior	Bucyrus
Richards, Raymond,	Engr.	Freshman	Powell
Richards, William Rosser,	Engr.	Freshman	Alliance
Richardson, Floyd A.,	E. E.	Senior	Columbus
Rickard, Everett Bernon,	E. E.	Senior	Columbus
Riddle, Fred Lombard,	Engr.	Freshman	Columbus
Rigby, Harry,	Engr.	Freshman	Cambridge
Rigby, Richard R.,	Cer.	Sophomore	East Liverpool
Rightmire, Edwin,	Engr.	Freshman	Mt. Vernon
Riley, William S.,	Cer.	Sophomore	Steubenville
Ringwald, William Eli,	C. E.	Senior	Chillicothe
Roa, Manuel A.,	M. E.	Junior	Cagayan, P. I.
Roberts, Alwin Rankin,	E. E.	Sophomore	Westernport, Md.
Roberts, Charles Winfield,	Engr.	Freshman	Conneaut
Roberts, William Jesse,	E. E.	Senior	Cincinnati
Robertson, Harry Andrews,	Engr.	Freshman	Cadiz
Robinson, Edgar William,	E. E.	Sophomore	Columbus
Robinson, James Lee,	C. E.	Sophomore	Conesville
Robinson, William A..	C. E.	Sophomore	Malta
Rogers, Raymond Alward,	E. M.	Sophomore	Columbus
Rohrer, A. Ray,	Engr.	Freshman	Lewisburg
Roll, William Charles August,	I. A. Short	Second	Sandusky
Rolnick, Samuel,	E. E.	Junior	Columbus

Name	*Course*	*Rank*	*Home Address*
Ronan, Wilbert Cathmore,	Arch.	Junior	Cincinnati
Root, Wallace Fenn,	C. E.	Senior	Streetsboro
Rosch, Albert Theodore,	Engr.	Freshman	New Philadelphia
Rose, Earl Griffith,	Arch.	Sophomore	Duvall
Rosenfield, David Samuel,	I. A. Short	First	Pittsburg, Pa.
Rosino, Gilbert G.,	Chem.	Junior	Sandusky
Ross, Coleman B.,	M. E.	Junior	Urbana
Ross, John Clarence	Engr.	Freshman	Columbus
Rothman, Charles,	Cer.	Senior	Cleveland
Row, Harold D.,	C. E.	Sophomore	Galion
Ruddell, Stephen L.,	Engr.	Freshman	Parkersb'g, W.Va.
Runyon, Nelle Frances,	Arch.	Sophomore	Columbus
Ryder, Isaac D.,	Cer. Short	Second	Lewisburg
Ryder, John C.,	Cer. Short	First	Lewisburg
Sackriede, William J. F.,	C. E.	Sophomore	Cincinnati
Sanders, Lawrence E.,	Engr.	Freshman	Eaton
Sanzenbacher, Walter Otto,	C. E.	Senior	Piqua
Sartwell, George E.,	Engr.	Freshman	Elyria
Sauer, Philip Allein,	Engr.	Freshman	Columbus
Schachtel, Solly Harris,	Cer.	Senior	Cleveland
Schaefer, Carl A.,	E. E.	Sophomore	Pomeroy
Schepflin, William Frederick,	C. E.	Senior	Fremont
Schieber, Arthur LeRoy,	E. E.	Sophomore	Bucyrus
Schieber, Harold Layton,	Engr.	Freshman	Bucyrus
Schlitt, William Joseph,	Engr.	Freshman	Columbus
Schmehl, Carl William,	Engr.	Freshman	St. Marys
Schmidt, Victor Phillip,	M. E.	Sophomore	Columbus
Schobe, Scott Riley,	Engr.	Freshman	Buckhannon, W.Va.
Schory. Herbert John,	C. E.	Senior	Canton
Schory, Ralph Miller,	Cer.	Senior	Canton
Schriefer, Edward Hake,	Engr.	Freshman	Cincinnati
Schwerber, George,	Cer. Short	First	Zanesville
Scofield, Glenn Wellington,	Engr.	Freshman	Columbus
Scott, Archie Hammond,	E. M.	Junior	Altoona, Pa.
Scott, Harlan Wuichet,	E. M.	Sophomore	Columbus
Scott, Harvey Cecil,	Engr.	Freshman	New Cumberland, W. Va.
Scott, Osmer Roy,	Engr.	Freshman	Painesville
Scott, Wirt Stanley,	E. E.	Sophomore	Portsmouth, Va.
Seaman, Sidney Rauch,	Chem.	Sophomore	Dayton
Seeger, Edwin Wilber,	Engr.	Freshman	Bucyrus
Seymour, Walter F.,	C. E.	Sophomore	Sandusky
Shafer, Oliver George,	C. E.	Sophomore	Caldwell
Shannon, John Wilbur,	Engr.	Freshman	Findlay
Shanton, John Gaylord,	Engr.	Freshman	Chillicothe
Shedd, Edmund Frisbie,	Engr.	Freshman	Columbus
Sheets, Cree,	Arch.	Senior	Tacoma
Sheidler, Paul King,	C. E.	Senior	St. Paris
Shelow, William S.,	Engr.	Freshman	Newport, Ky.

Name	*Course*	*Rank*	*Home Address*
Shepard, Sheldon Beardsley,	Engr.	Freshman	Ilion, N. Y.
Sherer, Carl Jacob,	M. E.	Sophomore	Dayton
Sherer, Ralph,	Engr.	Freshman	Dayton
Sherman, Charles Ferry,	E. M.	Junior,	Willoughby
Sherwood, Robert C.,	Engr.	Freshman	Columbus
Shetler, John Seymour,	Engr.	Special	Columbus
Shinkle, Lee Hale,	E. E.	Senior	Higginsport
Shirk, Earl Millner,	C. E.	Senior	Wheeling, W. Va.
Shklarin, Joseph,	C. E.	Sophomore	New York City
Shoemaker, Clifford,	C. E.	Senior	Grogan
Shoemaker, Lewis Henry,	M. E.	Junior	Massillon
Shuler, Harvey A.,	M. E.	Sophomore	Hamilton
Sibley, Chester Coe,	Engr.	Freshman	Columbus
Sigafoos, Robert S.,	Engr.	Freshman	Greenville
Simmons, Floyd Lewis,	E. M.	Sophomore	Columbus
Simmons. Ralph William,	Engr.	Freshman	Columbus
Sims, Ray,	Arch.	Sophomore	Columbus
Singer, Roland P.,	E. E.	Junior	Lewisburg
Sivas, Hyrand A.,	C. E.	Sophomore	Marsovan,Turkey
Slade, Lester P.,	C. E.	Sophomore	Mechanicsville, N. Y.
Sleight, George James,	C. E.	Sophomore	Cleveland
Sloane, Roscoe Chester,	Engr.	Freshman	Harrisville
Slobod, Anshel,	E. E.	Junior	Brooklyn, N. Y.
Smith, Clyde,	C. E.	Sophomore	Groveport
Smith, Frank,	Min. Short	First	Atlantic Mine, Mich.
Smith, Harry E.,	C. E.	Special	Stout
Smith, Harry Howard,	C. E.	Senior	Reynoldsburg
Smith, Homer,	E. M.	Sophomore	Plain City
Smith, Louis A.,	Cer.	Sophomore	N. Brighton, Pa.
Smith, Merlin,	E. E.	Sophomore	Bellefontaine
Smith, Paul Alan,	M. E.	Sophomore	Columbus
Smith, Raymond Hewitt,	C. E.	Sophomore	Woodstock
Snow, Glenn E.,	C. E.	Junior	Toledo
Snowhill, Granville,	C. E.	Senior	Fayetteville
Snyder, Floyd Lozene,	E. E.	Sophomore	Massillon
Sohn, Erwin,	Chem.	Senior	Cincinnati
Souders, S. Scott,	Engr.	Freshman	Dayton
Sparrow, William H.,	E. E.	Senior	Cleveland
Speer, Carl Hall,	M. E.	Senior	Hamilton
Spetka, Roy Russell,	Engr.	Freshman	Mansfield
Spiker, Alvin Draper,	M. E.	Sophomore	Dennison
Sproat, Ira Elmer,	Cer.	Junior	Covington
Stallkamp, Ralph Frederick,	Chem.	Sophomore	Delphos
Stalter, Jesse Dean,	Min. Short	First	Nelsonville
Stanford, Alfred Dennis,	Engr.	Freshman	Columbus
Starr, Walter,	Engr.	Freshman	Gahanna
St. Clair, Charles R.,	C. E.	Junior	Cumberland
Stebbins, Carl Rolland,	Engr.	Freshman	Creston
Steele, James Blaine,	Engr.	Freshman	Columbus
Steffan, Paul P.,	Engr.	Freshman	Osborne

Name	*Course*	*Rank*	*Home Address*
Steinbarger, Walter Dix,	C. E.	Junior	Columbus
Stertzbach, Harry Walter,	C. E.	Junior	Coshocton
Stevenson, Carl S.,	E. M.	Senior	West Rushville
Stevenson, Hugh,	Cer. Short	First	Ellerslie, Md.
Stewart, Arthur Douglas,	E. E.	Junior	Newport
Stewart, Charles Willard,	Engr.	Freshman	Cambridge
Stewart, John Potter,	Engr.	Freshman	Hamilton
Stiehl, Carl Ernst,	M. E.	Sophomore	Hamilton
Stinson, Harold B.,	Engr.	Freshman	Utica
Stoddard, Fred Marshal,	Engr.	Freshman	Olive Branch
Stoltz, Glenn E.,	E. E.	Senior	Gettysburg
Stout, Wilber,	Engr.	Special	Sciotoville
Stowell, Francis Howard,	C. E.	Junior	Columbus
Straight, Carl,	C. E.	Junior	Streetsboro
Stringfellow, Sidney Don,	Engr.	Freshman	Findlay
Strodtbeck, Frank H.,	Engr.	Freshman	Middletown
Stubbins, William Taylor,	Engr.	Freshman	Wellsville
Stuckey, Robert Burns,	I. A. Sh't	Second	Columbus
Suarez, Francisco,	Engr.	Freshman	San Antonio de los Baños, Cuba
Suarez, Rogelio,	Engr.	Freshman	San Antonio de los Baños, Cuba
Svimonoff, Victor C.,	E. M.	Freshman	Tiflis, Russia
Swarr, Sherman Franklin,	Engr.	Freshman	Dayton
Sweeney, Orland,	Chem.	Senior	Martin's Ferry
Taber, William P.,	E. M.	Senior	Barnesville
Tabern, Glenard Wilhelm,	Engr.	Freshman	Portage
Tabossi, Hector,	E. E.	Senior	Parana, A. R.
Talmage, Henry Richard,	M. E.	Junior	Mt. Gilead
Tanner, John Raymond,	C. E.	Junior	Columbus
Tappan, Frank Glenn,	C. E.	Sophomore	Delta
Tappan, George Herdman,	B. A., E. E.	Sophomore	Circleville
Taylor, Aaron Ernest,	Engr.	Freshman	Peoli
Taylor, Earl D.,	M. E.	Senior	McConnelsville
Taylor, Homer Milton,	C. E.	Sophomore	Xenia
Thistle, Sampson,	Engr.	Freshman	Sistersville
Thomas, George William,	C. E.	Junior	New Madison
Thomas, John Fred,	E. M.	Senior	Sharon
Thompson, Arthur S.,	Engr.	Special	Gambier
Thompson, Frank Lon,	Ind. Arts	Sophomore	Washington C. H.
Thompson, Hugh Bryant,	Engr.	Freshman	Kirtland
Thompson, Robert,	E. E.	Junior	Hilliards
Thompson, Roy Elmer,	Engr.	Freshman	Camp Chase
Thomson, Charles Sarmiento,	Engr.	Freshman	Delaware
Tidball, John Andrews,	Engr.	Freshman	Columbus
Tinsley, William C.,	Engr.	Freshman	Columbus
Tobin, Don Loraine,	Engr.	Freshman	Lancaster
Toledo, Antonio,	Arch.	Junior	San Roque, P. I.
Tom, John Edwin,	Engr.	Freshman	Columbus
Townsend, Frank Martin,	Engr.	Freshman	Mechanicsv'le, N.Y.

Name	*Course*	*Rank*	*Home Address*
Trautman, Ralph,	Engr.	Freshman	Bluffton, Neb.
Treat, Winfield Gordon,	Engr.	Freshman	Aurora
Trevino, Dario,	Engr.	Freshman	Monterey, Mex.
Triem, William Richard,	C. E.	Junior	Cambridge
Truitt, John William,	Engr.	Freshman	Milford
Turner, Faye Louis,	Engr.	Freshman	Marysville
Tussing, Paul Bayard,	Engr.	Freshman	Columbus
Tyson, Ralph Stuart,	Engr.	Freshman	Dayton
Upp, Clarence Raymond,	M. E.	Junior	Wauseon
Upson, Howard Henry,	Engr.	Freshman	Newark
Vaiden, Cowles Mead,	Engr.	Special	Vaiden, Miss.
Vail, Edna Dorothea,	Engr.	Special	Columbus
Valentine, Herbert,	E. M.	Junior	Columbus
Vallance, Alexander,	M. E.	Senior	Youngstown
Valverde, Carlos Agusto,	Engr.	Freshman	Lima, Peru, S. A.
Van Atta, Robert Smith,	E. E.	Junior	Columbus
Van Buskirk, Lear Harry,	Chem.	Junior	Fayette
Vandament, Harley L.,	C. E.	Junior	Laurel
Vandament, Orin Lee,	Engr.	Special	Hamersville
Van Orman, Clair C.,	Engr.	Freshman	Rock Creek
Van Sweringen, Fiske,	Engr.	Freshman	Findlay
Veit, Clarence E.,	Engr.	Freshman	Wapakoneta
Vogel, Joshua Holmes,	Engr.	Freshman	Toledo
Volkmann, Robert,	E. E.	Senior	Canton
Wagner, Edward,	Engr.	Freshman	Arcanum
Wagner, Otto Jesse,	E. E.	Junior	Bucyrus
Waid, Robert Neil,	C. E.	Senior	Townville
Walker, Charles E., Jr.,	C. E.	Sophomore	Hartwell
Walker, Fred Livingood,	E. M.	Sophomore	Kirkersville
Walker, Herman L.,	C. E.	Sophomore	Columbus
Walker, Neil,	Engr.	Freshman	Chillicothe
Wallace, Arthur W.,	Engr.	Special	Macedonia
Walling, Arthur B.,	Engr.	Special	Muncie, Ind.
Walter, Reuben Lloyd,	Engr.	Freshman	Millersburg
Wanka, Otto Fred,	Cer. Short	Second	Columbus
Ward, Edward Denver,	Engr.	Freshman	Ironton
Ward, Seymour Paul,	Cer.	Senior	Glendale, Cal.
Wardman, William Matthew,	Engr.	Freshman	Ashtabula
Wardwell, Frank C.,	C. E.	Junior	Conneaut
Warner, Lawrence A.,	C. E.	Sophomore	Carlsbad, N. M.
Watkins, Raymond,	Engr.	Freshman	Columbus
Watt, H. Houston,	Chem.	Senior	Barnesville
Weaver, Anthony,	Engr.	Freshman	Worthington
Webb, Clarence Boutelle,	E. E.	Sophomore	Defiance
Webb, Harry Curtiss,	Engr.	Freshman	Cleveland
Webster, Philip Harvey,	Min. Sh't	Special	Van Wert
Wegener, Harvey A.,	Engr.	Freshman	Detroit, Mich.
Weimer, George O.,	E. E.	Junior	Beach City
Weimer, Leland Frank,	E. E.	Senior	Beach City
Weinberg, Walter Henry,	Engr.	Freshman	New Bremen
Weiske, Herman Henry,	Min. Sh't	First	Wheeling, W. Va.

Name	*Course*	*Rank*	*Home Address*
Weissbach, Walter,	E. M.	Sophomore	Springfield
Weller, Orville Axline,	E. E.	Senior	Newark
Welling, Franklin P.,	Arch.	Senior	Worthington
Welliver, James Everson, Jr.,	C. E.	Sophomore	Dayton
Wells, Leslie R.,	Cer.	Sophomore	Troy
Wells, Paul Morley,	C. E.	Junior	Toledo
Welsh, Carl M.,	Engr.	Freshman	Paulding
Weston, Watt,	Engr.	Freshman	Kenton
Wetzel, Charles Joseph,	C. E.	Senior	Dayton
Weybrecht, John W.,	Engr.	Freshman	Alliance
Whims, Charles,	E. E.	Junior	Columbus
Whipple, Charles Augustus,	C. E.	Junior	Athens
Whipps, Rusk Henry,	Engr.	Freshman	Columbus
Whittenberger, Owen M.,	Engr.	Freshman	Akron
Wigginton, Ellsworth Harold,	Engr.	Freshman	Plain City
Wilde, John Frederick,	Cer. Sh't	First	Hamilton
Wilkinson, Warren H.,	M. E.	Sophomore	Columbus
Williams, Thomas Ambrose,	E. M.	Junior	Ironton
Williamson, Earl Clay,	E. E.	Junior	Cuyahoga Falls
Williamson, Harry Frederick.	E. E.	Sophomore	Ilion, N. Y.
Wills, Ernest Joseph,	C. E.	Junior	Niagara Falls
Wilson, Cecil F.,	E. E.	Sophomore	Roseville
Wilson, Hewitt,	Engr.	Freshman	Columbus
Wilson, Rodney Cushing,	M. E.	Junior	Fitchburg, Mass.
Wilson, Roeloff Henry,	Engr.	Freshman	Plymouth
Wilson, Walter Warren,	M. E.	Junior	Selma
Wolcott, Neal,	Engr.	Freshman	Greenwich
Wolfe, George Watson,	Chem.	Sophomore	Columbus
Wolff, Daniel R.,	E. E.	Sophomore	Mansfield
Wonders, Driscoll,	C. E.	Sophomore	Bellefontaine
Wood, James Donald,	Engr.	Freshman	Worthington
Worley, Scott Winston,	C. E.	Sophomore	Hillsboro
Wright, Miles Ludlow,	E. E.	Junior	Newark
Wyatt, Charles Dale,	Engr.	Freshman	Columbus
Wysong, Everett,	Engr.	Freshman	Eaton
Yankie, Richard Le Roy,	Engr.	Special	Peebles
Yeager, Leo,	E. M.	Junior	Columbus
Young, Merle Wilfrid,	E. E.	Sophomore	Marion
Young, William Denton,	Engr.	Freshman	Uhrichsville
Zelinsky, John Albert,	Engr.	Freshman	Shenandoah, Pa.
Zorn, William Henry,	M. E.	Senior	Gibsonburg

COLLEGE OF LAW

Name	*Year*	*Home Address*
Ahern, William Joseph,	Second	Akron
Aikman, John William,	First	Sidney
Allread, Harold Charles,	First	Greenville
Andree, Ehrhardt Gustav, B. A.,	First	Chillicothe
Ashbrook, John William,	First	East Toledo
Baker, Isaac Christian,	First	Somerville
Barnett, Le Roy Douglass,	Second	Zanesville
Barnett, Warren,	First	Waterford
Beam, Henry Greer, B. Ph.,	First	Mt. Vernon
Bell, Clifford Ray,	Second	New Castle
Benoy, Wilbur Emanuel,	Second	Columbus
Bering, Edgar Andrew,	First	Cincinnati
Bowman, Shadrach W.,	Second	Columbus
Brandon, Archard,	Third	Columbus
Brooks, William Edwin,	Second	Zanesville
Burt, Russell Jeffords,	Second	Columbus
Butler, James Edgar, B. A.,	First	Columbus
Carothers, Frank K.,	First	Sidney
Clare, James David,	Third	Portsmouth
Cline, Grover Cleveland,	Third	Ashville
Coffman, Howard Louis,	First	Columbus
Cohn, Aaron Bertrand,	Second	Toledo
Cohoe, John Connor,	Third	Derry, Pa.
Colton, Ray B.,	Third	Windham
Corkwell, Clarence Lister,	First	Mt. Sterling
Crawfis, Orland R.,	Special	Continental
Davis, Benjamin Hull,	Second	Union City, Ind.
Dennis, Charles Edson,	First	Columbus
Douglas, Orrin F.,	Third	Columbus
Dunkle, Forest W.,	Third	Xenia
Dupre, William Kent,	First	Portsmouth
Erwin, Joseph Carl,	Special	McConnelsville
Estep, Arthur,	Special	New Athens
Evans, Walter Laylin,	First	Norwalk
Ewing, Frank,	First	Poland
Farrison, John Shelton,	First	Orangeburg, S. C.
Fay, Perry Smith,	First	Columbus
Fenton, Marshall Glover,	First	Chillicothe
Ford, Ferd,	Third	Columbus
Fowler, Charles Earle, B. A.,	First	Uhrichsville
Funkhouser, Samuel King,	Second	Harrisonburg, Va.
Gardiner, John Kelley, B. A.,	First	Fairview
Graham, Walter Hezekiah,	Second	Marysville
Hamm, V. Andrew,	First	Chillicothe
Hanna, Stephen W.,	First	Columbus
Harr, Herbert Spencer,	First	Hamilton
Hawley, Howard Earl,	Third	Columbus
Hay, Glen Irwood,	First	Canton
Hayne, George Roy,	Second	Krumroy
Heinisch, Hubert Gustave,	Third	Portsmouth

Name	*Year*	*Home Address*
Helwig, Harry F.,	First	Kendallville, Ind.
Hennen, Donley C.,	First	Jollytown, Pa.
Hightower, Henderson Grover,	First	Columbus
Hindman, John W.,	Special	Iberia
Hoover, Stuart A.,	First	Columbus
Houston, Harold Warner,	Third	Urbana
Hunter, Frank Anthony,	Special	Columbus
Jones, Thomas Hoyt,	First	Jackson
Kehrer, Victor John,	Second	Martin's Ferry
Kennedy, John Kenny,	Third	Columbus
Ketcham, Victor Alvin, B. A.,	Second	Corning
Kibler, Edward, Jr.,	First	Newark
Kientz, John Edward,	First	Glouster
Kimball, Charles Ernest,	Second	Woodstock
Kinney, James Edgar,	Second	Bellaire
Kirkendall, Emmett R.,	Third	Athens
Kling, Donald Wright,	First	Marion
Levinson, Ralph,	First	Steubenville
Lindsey, Harry Wilson, Jr.,	First	Dayton
Lindsey, Theodore Clay,	First	Dayton
Logan, Richard Dougherty,	Third	Waverly
Lorentz, Roscoe Clyde,	Second	Columbus
Lowe, Henry Jacob,	First	Shelby
McCleery, James Wilson,	Third	Lancaster
McConkey, Samuel Ferguson,	Special	Cambridge
Medford, Charles A.,	Special	Columbus
Meikle, Walter,	Second	Olequa, Wash.
Merchant, Clyde D.,	Second	Orrville
Middleton, George Staten,	First	Urbana
Middleton, Henry A.,	First	Cable
Miller, B. Frank,	Second	Urbana
Moore, Barclay Welch,	Third	Cadiz
Moore, C. Ellis, B. Sc.,	Second	Quaker City
Morrow, Emmett M.,	Second	Toronto
Murdock, Albert,	First	Cincinnati
Nailor, Joseph Charles,	Third	Columbus
Oldham, Robert,	First	Sidney
Patasky, Herman,	First	Dayton
Payne, Louis T.,	Special	Columbus
Perfler, Arthur Joseph,	Second	Columbus
Pfeiffer, Robert Edward, A. B.,	Second	Columbus
Pierpont, Grover Conrad, A. B.,	Second	Johnstown
Purcell, Ella June,	Second	Columbus
Quinby, Anna, B. Sc.,	Third	Edenton
Randall, Cecil Jay,	First	Columbus
Richey, Clarence L.,	Second	Columbus
Ridings, Cyrus F.,	Special	Cozzaddale
Riner, Clifford C.,	First	Eaton
Roan, Francis Joseph,	First	Columbus
Robbins, James Martin,	First	Jackson
Roderick, Owen M.,	First	Jackson
Roth, Max C.,	Third	Columbus

Name	*Year*	*Home Address*
Russell, Morrisson Waite,	Second	Ironton
Sands, Harry Jay,	First	Columbus
Sayre, Paul Morris,	Second	West Liberty
Schantz, George Jr.,	Special	Dayton
Schoenlaub, Emerson,	Third	Marion
Secrest Fred Miller,	Third	Chillicothe
Seidel, John Frank, B. A.,	Second	Bowers Station, Pa.
Seitz, Adrian,	First	Wapakoneta
Shappell, Richard Avery,	First	Lima
Shaw, A. Vere,	First	Mansfield
Sherick, Clyde Cea, B. A.,	Second	Ashland
Sherman, Mathias John,	First	Minster
Smith, Charles Alan,	First	Columbus
Smith, Earl E.,	Second	Columbus
Smith, Howard J.,	Special	Martin's Ferry
Smith, Howard Stanley, A. B.,	Third	Dayton
Snodgrass, Harry Williams,	Second	Mechanicsburg
Snow, Robert B.,	Second	Athens
Stoddart, John Cole, B. A.,	Second	Columbus
Stokes, William Ottis,	First	Dayton
Vance, Kyle McClellan,	First	London
Warrick, Elmer J.,	Third	Clarkson
Watson, James Harrison, B. A.,	Second	Columbus
Weaver, Chester,	First	Corning
Wells, Ashford Bruce,	Third	Nelsonville
Wertz, Dwight Elmore,	Second	Dalton
Werum, Clarence M.,	First	Columbus
Wilson, Halbert M.,	First	Barnesville
Worline, Hiram Winfield, B. L.,	Third	Delaware
Ziliox, Leon Jacob,	Third	Hamilton

COLLEGE OF PHARMACY

Name	*Course*	*Rank*	*Home Address*
Albee, Wayne N.,	Short	First	Mansfield
Arnold, Rolland Beaumont	Short	First	Bellaire
Austin, Edgar Covell,	Short	First	Hamilton
Barton, Arthur W.,	Short	First	Cumberland
Bates, Lloyd Vere,	Short	First	Newark
Bechtel, Carl,	Short	Second	Orrville
Berger, Joseph Carl,		Special	Columbus
Bergin, Thomas A.,	Short	First	Columbus
Blum, Robert G.,	Long	Sophomore	Portsmouth
Booth, Herbert Barton,	Long	Freshman	Columbus
Brewer, Harry Wesley, Jr.,	Short	First	Columbus
Brown, Clarence Mert,	Long	Sophomore	Columbus
Buck, Frank Hughes,	Short	Second	Columbus
Busch, Cadie V.,	Short	First	Racine
Carlile, James R.,	Long	Freshman	Columbus
Carson, Wilbur Edison,	Short	First	Columbus
Court, Robert B.,	Short	Second	Mantua

Name	*Course*	*Rank*	*Home Address*
Covert, Benjamin H.,	Short	Second	Loudonville
Davy, Edward D.,	Short	Second	Pandora
Dunn, James Arthur,	Long	Freshman	Dayton
Etinger, Harry,	Short	First	Columbus
Ewing, Clare O.,	Long	Freshman	Carey
Fickardt, George Hunter,	Long	Sophomore	Circleville
Foeller, Ralph Edmond,	Long	Freshman	Columbus
Foeller, Raymond Albert,	Long	Freshman	Columbus
Foster, Le Roy Blake,		Special	Navarre
Funk, John R.,		Special	Hamilton
Gaessler, William George,	Long	Sophomore	Cincinnati
Giffin, Dwight L.,	Short	Second	Mansfield
Gilson, Herbert R.,		Special	Steubenville
Graham, Lamar,	Long	Freshman	Columbus
Hedrick, Earl,	Short	First	Canal Winchester
Herzer, August Scheffel,	Short	First	Marietta
Hicks, George Ryan,	Short	First	Chillicothe
Hughes, William A.,	Short	Second	Columbus
Kaminsky, Charles William,	Sh't	First	Salem
Kauffman, Myron B.,	Long	Senior	Columbus
King, Charles,	Long	Freshman	Germantown
Landrum, Francis Harold,	Long	Junior	Columbus
Larkworthy, Milton Keen,	Short	First	Galion
Lease, John H.,	Short	Second	Salem
Leighninger, William Blaine,	B. A., Long	Sophomore	West Lafayette
Leonard, John Aaron,	Short	First	Columbus
Lewis, Arthur,	Short	First	Anna, Ill.
Loefler, John Henry,	Short	First	Ilion, N. Y.
Lucas, Charles Herbert,		Special	Circleville
McCormick, Thomas,	Short	Second	Mt. Vernon
McElroy, William Harrison,	Sh't	Second	Newcomerstown
Main, Ray F.,	Long	Senior	Columbus
Mathews, Herbert D.,	Short	First	Mt. Gilead
Metzger, Henry George,	Short	First	Shelby
Mohler, Bruce M.,		Special	Fremont
Morlock, Edward A.,	Short	Second	Sidney
Neal, James Howard,	Long	Freshman	Gallipolis
Newton, George Barton,	Short	First	Dayton
Parkinson, Charles Raymond,	Long	Freshman	Columbus
Peirsol, Allan George,	Short	First	Bellaire
Phelps, Thomas D.,	Short	First	Xenia
Philo, Frank Goldsmith,	Long	Freshman	Columbus
Pike, George, Walter,	Short	Second	Lisbon
Price, Herbert Stanley,	Short	First	Columbus
Putt, Earl Berger,	Long	Senior	Youngstown
Racer, George William,	Short	First	Columbus
Ranck, Paul,	Short	First	Sycamore
Reynolds, Glide A.,	Short	Second	Greenwich
Russell, Robert Daniel,	Short	First	Xenia
Ryan, Percy Michael Joseph,	Sh't	First	Binghamton, N. Y.

Name	*Course*	*Rank*	*Home Address*
Saylor, Alfred,	Short	First	Antwerp
Shinn, Leon Powell,	Short	Second	Huron
Shipps, Paul Spencer,	Short	Second	Zanesville
Smith, Donald Silcox,	Short	First	Attica
Stephens, Robert, Jr.,	Short	First	Columbus
Stevenson, Arthur Dorsey,	Short	First	Mt. Blanchard
Stilgenbaur, Victor Edward,	Long	Freshman	Bellevue
Swigart, Michael George,	Short	Second	Dayton
Taylor, Olin Curtis,	Short	First	Cumberland
Thone, Marie N.,	Long	Freshman	Columbus
Trent, Ozro C. M.,	Long	Freshman	Fort Smith, Ark.
Welsh, Grover,	Long	Sophomore	New Middletown
Wilson, George Henry,	Short	First	Steubenville

COLLEGE OF VETERINARY MEDICINE

Name	*Rank*	*Home Address*
Abrams, Guy,	Second	Moscow
Alcalay, Samuel Jonas,	First	Jerusalem, Turkey in Asia
Anderson, Leo,	Second	Columbus
Armstrong, Guy C.,	First	Columbus
Atorthy, Noresh Chandra,	First	Calcutta, India
Baker, Eustace T.,	Third	Dayton, Pa.
Barrett, Edward John,	First	Lily Chapel
Barry, Cornelius A.,	First	Columbus
Beach, Burr A.,	Third	Geneva
Beverly, Albert Lee,	First	Ames, Iowa
Bias, James Hendrix,	Second	Vicksburg, Miss.
Bond, Ralph Emerson,	First	Columbus
Bradford, John P.,	First	Columbus
Bradford, Samuel Clinton,	First	Columbus
Brady, James T.,	Third	Ithaca, N. Y.
Brailove, Harry M.,	First	Woodbine, N. J.
Brandewie, William John,	Third	Sidney
Breen, Maurice Francis,	Second	Rochester, N. Y.
Brock, Gunther,	First	Dallas, Tex.
Broerman, Alvin,	Third	New Bremen
Bryant, Harry Hoadley,	Third	Sheboygan Falls, Wis.
Buck, Arthur Percy,	First	Ames, Iowa
Burkert, Charles David,	First	Columbus
Burkland, Herman Walter,	First	Jefferson
Burns, Arthur Clayton,	Second	Cuero, Tex.
Cates, Robert Wade,	First	Hamilton
Chalfant, Allen Smith,	First	Thornville
Coe, Thomas V.,	First	Carbon Hill
Considine, James B.,	Third	Watkins, N. Y.
Cook, Chauncey E.,	Third	Harrod
Cook, William Grover	Second	Findlay
Covault, Clarence H.,	First	Troy
Cowgill, Thomas Elwood,	Third	Delaware
Coyner, Floyd,	First	Frankfort

Name	*Rank*	*Home Address*
Crow, Earl Hezekiah,	First	Xenia
Cullen, James T.,	Second	Watkins, N. Y.
Cunin, Earl A.,	First	Louisville
Davis, Leo,	First	Coshocton
Deahl, Clarence Edgar,	First	Columbus
Decker, Charles H.,	Second	Columbus
De Crouch, Lethean Wheeler,	First	Chicago, Ill.
Denman, Clarence B.,	Third	Hanover
Dix, Ralph M.,	First	Ostrander
Dunn, Ralph Clark,	First	Tiffin
Ecker, William Reuben,	First	Woodbine, N. J.
Eckman, Albert William,	Second	Columbus
Egan, Harold Edward,	First	Columbus
Elder, Noah J.,	First	Mt. Blanchard
Elsey, Mark,	Third	Plain City
Evenson, Harry,	Third	Wahpeton, N. D.
Ewing, Harry Eastman,	Third	Columbus
Farber, Harry,	Second	Pataskala
Fisher, Burl Olmstead,	First	Wayland
Fisher, Laurence Willis,	First	Columbus
Fogle, Allan,	Second	Columbus
Foos, Edgar,	Second	West Manchester
Force, Benjamin Franklin,	Second	Akron
Fortune, Steven Gray,	First	Ludington, Mich.
Foster, T. J.,	Third	Thornville
Frame, James Donard,	Third	Newcomerstown
Fraser, Alexander G.,	Third	Columbus
French, Charles S.,	First	Rio Grande
Fry, Russell Warren,	Second	Bettsville
Garrahan, Lorenzo P., D. V. M.,	Graduate	Buenos Aires, A. R.
Gehres, Martin,	Second	Wren
Gillie, Peter,	Second	Fort Wayne, Ind.
Gittins, Robert H.,	Second	Columbus
Goodlive, Albert,	Second	Junction City
Gow, Ronald M.,	Third	Cadillac, Mich.
Graber, Wynter,	Third	Dalton
Graumlich, Salado D.,	First	Duvall
Greaves, Harold Addison,	First	Northfield, Minn.
Greenlee, Chris W.,	First	Rayland
Griffith, Lorenzo Dow,	First	Columbus
Hall, Howard Ray,	First	Chinchilla, Pa.
Halsey, Fred Douglass,	First	St. Joseph, Mo.
Hartman, Clark Franklin,	Second	Bellevue
Henry, William Martin,	First	New Vienna
Higgins, Henry Mason, Jr.,	First	Cincinnati
Holzmann, Jesse J.,	First	New Ulm, Tex.
Hoskins, Harley R.,	First	Columbus
Hoskinson, Clyde W.,	First	Pataskala
Hover, Elsie Verne,	Second	Harrod
Hughes, Aaron,	First	Delaware
Hutton, John Peter,	First	Wooster
Hyde, David C.,	Second	Sullivan

Name	*Rank*	*Home Address*
Jansen, Andrew M.,	Second	Harrison
Johns, Clarence A.,	Second	Medina
Jollie, Malcolm Richard,	Second	Jefferson
Jones, Elbert,	First	Marietta
Jordan, George Selwyn,	Third	Warner, N. H.
Julien, Albert H.,	Second	Columbus
Kamis, Stephen A.,	First	Cleveland
Kennedy, Rufus Ferry,	First	Medina
Killian, Bertram Snow,	First	Everett, Mass.
Kimnach, Elmer Edward,	First	Lower Salem
Kitzhofer, Joseph H.,	Second	St. Paul, Minn.
Koten, Louis Raphael,	First	New York, N. Y.
Lambert, Fousa Allan,	Second	Kenton
Larzelere, Harry D.,	Third	Roseville
Leibold, Armin Anton,	First	Columbus
Leslie, Roy Frank,	First	Mayfield
Lollar, Ernest E.,	First	Indianapolis, Ind.
Long, Earl F.,	Second	Kenton
Lowe, Clifton D.,	Second	Blanchester
Ludwig, Lewis H.,	First	Marietta
Lyons, Leo E.,	First	Louisville
McCarty, William Timothy,	Third	Columbus
McCoy, Joseph Arthur,	First	Washington C. H.
McLean, Frank Martin,	First	Calais, Maine
McNeal, Neal,	First	Iberia
Maguire, John Clemenson,	First	Columbus
Marshall, Chester Ray,	First	Columbus
Martin, Edward David,	First	Dawn
Mason, George Forest,	First	Lisbon
Maxwell, Henry Greenleaf,	First	Kansas City, Kan.
Mechling, George S.,	First	Glenford
Meckstroth, Florenz Christian,	Special	Wapakoneta
Meyer, John Carl,	First	Covington, Ky.
Meyerhoeffer, Joseph,	Second	Dayton, Va.
Miller, Aaron Dale,	Second	Alexandria
Miller, George O.,	Second	Richwood
Miller, Paul Wallace,	Second	Cuyahoga Falls
Moon, Orland J.,	Third	Sabina
Morris, Harry,	Second	Bloomingburg
Morrow, Albert Caine,	First	Cincinnati
Musser, Arthur Blaine,	Third	Wapakoneta
Neuenschwander, Waldo M.,	First	Pandora
Newcomb, Raymond W.,	Second	Fitchburg, Mass.
Norris, W. Harry,	Third	Chilo
Nutt, Robert H.,	Third	Westerville
O'Harra, William G.,	Second	Alton
Olds, Ben H.,	First	Conneaut
Oswald, Eugene,	First	Buenos Aires, A. R.
Palmer, Merrill,	Third	Pataskala
Patton, Lester E.,	First	Utica
Payne, Walter Willard,	Second	Mitchell, Wis.
Peebles, Sidney,	First	Columbus

Name	*Rank*	*Home Address*
Peterson, Howard C.,	First	Frankfort
Pierce, George Harold,	Third	Duvall
Porter, Earl Wayne,	Second	Republic
Porteus, Robert,	Second	West Lafayette
Powell, George Roland,	First	Columbus
Powell, Royce R.,	Third	Columbus
Prieser, Fred, Jr.,	First	Wapakoneta
Ratigan, William John,	First	Oswego, N. Y.
Reel, Philip John,	First	Columbus
Roberts, Harry M.,	Second	Washington C. H.
Robinson, Warner Cephas,	First	Newcomerstown
Rothe, Hino Henry,	First	Hondo, Tex.
Salt, Homer Arthur, B. A.,	First	Yellow Springs
Schaeffer, George Harrison,	First	Germantown
Schlingman, Albert Stanley,	First	Eaton
Sharp, Frederick M.,	First	Worthington
Shreve, Charles Gray,	Third	Martin's Ferry
Sims, Otto Leroy,	First	Basil
Skidmore, Chester,	Third	West Mansfield
Slater, Leroy E. McKay,	First	Columbus
Slyh, Herbert Allen,	First	Columbus
Smith, Daniel R.,	First	Columbus
Smith, Emory Hadsell,	First	Fayette
Smith, George, Jr.,	Second	West Unity
Smith, Leslie Leonard,	First	Dayton
Smith, William A.,	Third	Pataskala
Spindler, John L.,	Third	Ashville
Stein, Alva C.,	First	Worthington
Stone, Norman Tyler,	First	Columbus
Stuber, Albert C.,	First	Sidney
Swinehart, Dorsey Meade,	Second	Somerset
Tanner, Clarence Benson,	Second	Columbus
Tate, Hiram Lyle,	Second	Paulding
Tawney, Charles Thomas,	Second	Wooster
Timmons, Benjamin Arthur,	First	New Holland
Trehearne, Rosser,	Second	London
Turner, John Elmer,	Third	Lima
Turney, Carl Douglass,	Third	Louisburg
Ullery, Joseph Crane,	First	Covington
Varas, Juan, Jr.,	Second	San Juan, P. R.
Vaughn, Paul,	First	Columbus
Wadsworth, Claude,	First	Greenspring
Wagner, Clarence Lee,	Second	Columbus
Waters, Fred C.,	First	Columbus
Westerheide, Edward E.,	First	Minster
White, Minor,	First	Vadis, W. Va.
Whitmer, Homer C.,	Third	Thornville
Wickham, Joy Carrollton,	First	Cardington
Wilcoxen, Clarence Hopkins,	First	Racine
Williams, Charles Sears,	First	Columbus
Wilson, Gilbert,	Second	Columbus
Wilson, Le Roy,	First	Plain City

Name	*Rank*	*Home Address*
Woolley, Bruce D.,	Second	Athens
Ziegenbusch, Edwin,	First	Buckland
Zimmer, Fred,	Third	Williamsburg

SUMMER TERM

1908

Name	*Home Address*
Adair, Flora L.	Magnetic Springs
Adell, Claude	Groveport
Aduddell, Helen H.	Sarahsville
Albing, Henry W.	Buffalo, N. Y.
Allen, Edgar M.	Chillicothe
Allen, Elizabeth	Columbus
Allen, Harry Gilliam	Columbus
Almond, Bennie	Chicago
Andrix, Edith	Columbus
Arbogust, Charles O.	Xenia
Arundel, John F., B. A.	Cincinnati
Ashbrook, Anna	Milo
Asher, Miriam	London
Aston, Charles B.	Byesville
Atkinson, Harry Victor	Van Wert
Aushutz, Grace	Blanchester
Austin, Robert O.	Columbus
Axisado, Pastor	Vigan, P. I.
Backman, Stanley George	Cincinnati
Barrett, William M.	Hillsboro
Barsamian, D. B.	Columbus
Bascom, Reynolds Ralph	Columbus
Baughman, Ray L.	LaRue
Baumann, John	Monroe, Wis.
Bayha, Anna E.	Wheeling, W. Va.
Beard, Violet	Columbus
Bechberger, Earl H.	Norwalk
Beckwith, C. F.	Columbus
Beckwith, May	Jefferson
Bell, Harry L.	Bradford
Bell, Howard H.	Columbus
Benham, Eugene T.	Columbus
Bennett, G. Edmond	Grand Rapids, Mich.
Berlin, Frederick M.	Columbus
Biggert, Edward F.	Columbus
Binckley, Adeline	Kenton
Black, Thurman	Shelby
Blackburn, J. Ellis, Jr.	Columbus
Blaine, Eddith	Mt. Sterling
Blohm, Anna Frances	Marietta
Blum, Helen	Canton
Boetticher, John E.	Kinsman
Bone, Hugh M.	Columbus

Name	*Home Address*
Bown, Ettella	Columbus
Booth, William K.	Columbus
Bostwick, Valeria	Columbus
Boving, Antonia	Carroll
Bower, Katharine	Mineral City
Bradley, George H., Jr.	Cincinnati
Brady, Laura Augusta	Columbus
Brody, Jacob George	Youngstown
Brownfield, Warner	Columbus
Buck, Orson Wayne	Columbus
Buck, Ralph William	Cardington
Bumgardner, Karl J.	Lancaster
Burden, Harry Cnarles	Sandusky
Burgner, Linneaus P.	Toledo
Burlew, Frances C.	Olive Branch
Bussert, Edgar C.	Amanda
Butler, Harriet	Plain City
Byers, Maud E.	Columbus
Byers, R. Clede	Columbus
Caldwell, Clinton Everett	Shadyside
Campbell, Margaret	Columbus
Carter, M. O.	Hazel Green, Ky.
Cartmell, Bessie	Columbus
Castle, Alfred W.	Orwell
Chambers, Mrs. Jennie	Columbus
Chavis, Walter Martin	West Liberty
Christy, La Mar	Fremont
Clark, David Burns, B. Sc.	Delaware
Clark, Grace Janet	Columbus
Clifton, Oliver B.	Pataskala
Coblentz, Ralph W.	Dayton
Coles, Henry L.	Columbus
Colgan, Grace	Columbus
Collingwood, Howard Thomas	Columbus
Collins, Robert	Columbus
Conard, Donald R.	Columbus
Conard, John B.	Hillsboro
Condit, D. Dale	Jersey
Conrad, George Louis	Columbus
Conradt, Theodore J.	Montrose, Iowa
Cook, Rossel L.	Bellefontaine
Corbin, Alma	Columbus
Costigan. Nan	Columbus
Cox, George W.	Trinway
Cozzens, William Leonard	Columbus
Crabbe, Thyrza M.	Mt. Sterling
Crouch, Robert Eugene	Columbus
Crow, Bertha	Orient
Culp, Emma S.	Columbus
Darling, Florence	Mechanicsburg
Davis, Forest William	Bryan
Davis, George H.	Byesville

Name	*Home Address*
Davis, James Monroe	Somerset
Denmead, Walter Angus	Columbus
Dickey, Francis W	Clintonville
Dill, Emma B	Columbus
Dillahunt, G. W	Springfield
Dillingham, Abbie W	London
Dorchester, Paul	Pittsburg, Pa.
Dossett, Frank	Mingo Junction
Dotter, Merion	Columbus
Doty, Preston	Columbus
Douglas, Sholto M	Waverly
Dunigan, William J	Mt. St. Joseph
Durfey, George J	Williamsburg, Va.
Eaton, Jeannette	Columbus
Eberly, Charles Ambrose	Columbus
Ebersbach, Walter F	Pomeroy
Echols, Corinne	Columbus
Ehler, Harvey F	Eaton
Ehrman, George L	Chicago
Elliot, Amer F	Milford Center
Ely, Nellie	Columbus
Emswiler, Harold W	Kirkersville
Ewing, Max Clark	Centerville
Fairs, Annie L	Frankfort, Ky.
Falkner, Carl George	Dayton
Falter, Ida K	Columbus
Fawcett, Charles F	Salem
Fellows, Ada J	Columbus
Ferguson, Henrietta	Columbus
Ferguson, Robert Clark	Columbus
Field, Wooster Bard	Columbus
Finneran, Edward	Columbus
Finney, Margaret	Wabash, Ind.
Fitzpatrick, J. Raymond	Xenia
Flower, Maude E	Akron
Foster, Orie Floyd	Columbus
Foster, Mrs. Elizabeth H	Columbus
Foster, William A	Columbus
Frank, Sumner B	Zanesville
Frazier, F. Fay	Sidney
Freeland, Eleanor	Marion
Fridley, Guy Vest	Lithopolis
Fulton, Charles P	Cambridge
Gaessler, William G	Cincinnati
Gallen, Francis Thomas	Columbus
Gallen, Helen M	Columbus
Garcia, Rufino	Magsingal, P. I.
Garrett, Zuleime	Chillicothe
Gasche, Karl Wise	Dresden
Gascoigne, George	Toledo
Gatewood	Columbus
Gatewood, Lee C	Columbus

Name	*Home Address*
Gatewood, Wesley Emmet	Columbus
Gemunder, Denman K.	Columbus
Gibson, A. E.	Cleveland
Gibson, Bess B.	New Straitsville
Gibson, Millard F.	Columbus
Giesy, Paul Miller	Columbus
Giffin, Elizabeth J.	Columbus
Giles, Leslie William	Columbus
Gormley, Mary	Clintonville
Gormley, Rose	Clintonville
Goss, Leonard	Ravenna
Grant, Arthur C.	Middlefield
Grant, Ernest Holman	Kennedy
Gray, Hugh Gordon	Mansfield
Green. J. C.	Shepards
Green, Mary	Columbus
Greenamyer, Merle Read	Leetonia
Greener, Nelle Davis	Columbus
Gregg, Robert D.	Genoa
Greiner, Corna	Columbus
Griesinger, Henry Walter	Mansfield
Groves, H. D.	Summerville, W. Va.
Groves, Hazel M.	Sedalia
Groves, Mabel M.	Sedalia
Gupta, D. C.	Dacca, India
Guy, Ruth C.	Plain City
Hall, Herman	Plain City
Hall, Ralph Edwin	Massillon
Hanger, Wallace Edwin	Somerville
Harmount, George P.	Columbus
Harper, Grace M.	Newport, Ky.
Hart, Grover F.	Newark
Hartman, Oscar	Woodville
Hartman, Otto R.	Woodville
Hartzell, Ross C.	Troy
Haviland, Alice	Salem
Hayes, Beatrice B.	Mansfield
Hayes, Lucile H.	Mansfield
Hegele, August J.	Columbus
Heller, Vernon O.	Lithopolis
Henderson, C. E.	Maynard
Hesse, Gail L.	Columbus
Hill, Ercell C.	Middleport
Hirst, Byron D.	Girard
Hixson, Arthur H.	Columbus
Hixson, Grace	Wellington
Hollingsworth, Marion	Jamestown
Hoover, Stuart A.	Columbus
Hoursouripe, Juan	Las Heras, A. R.
Houston, Grace	Columbus
Howard, Harry W.	Lancaster
Howe, George	New Straitsville

Name	*Home Address*
Hubbell, James D.	Columbus
Hughes, Henry T.	Columbus
Hull, Dorothy	Columbus
Hungelmann, Mathilde	Columbus
Hurlburt, Lee R.	Freedom Station
Hutchinson, William C.	New Vienna
Hutchison, James E.	Xenia
Hyatt, Edward	Cleveland
Ingold, Ferd, Jr.	Monroe, Wis.
Jackson, Herbert	Toronto, Ont.
Jacob, Honora	Norwood
Jenkins, Howard Le Roy	Springfield
Jennings, C. E.	North Fairfield
Jewett, Kate	Worthington
Johnson, Elizabeth Frances	Cincinnati
Johnston, John B.	Cincinnati
Jones, John W.	Milo
Jones, Roscoe C.	Laura
Judkins, Morton	Columbus
Kegerreis, Roy	Bellevue
Kendig, F. A.	Osborne
Kern, Clyde G.	Alexandria
Kindlespire, Peter W.	Spencer, Iowa
King, Clarence R.	Toledo
Kling, Emma E.	Greenfield
Kocher, Agnes	Lockbourne
Koehler, Susanne M.	Columbus
Kromer, Clarence F.	Columbus
Kuenzel, P. E.	New Bremen
La Crone, Pearl M.	Ellijay, Ga.
Laizure, Grant A.	Groveport
Lake, Charles H.	Granville
Lammer, H. F. W.	Cleveland
Langhead, Beatrice	Columbus
Latimer, Mrs. Mary Helser	Plain City
Lawrence, Stanley	New Holland
Layton, Clifton M.	Summit Station
Lazarus, Harriet Josephine	Columbus
Lake, William	New Straitsville
Leake, William	New Straitsville
Leckliter, Floy	Columbus
Leckliter, Grace	Worthington
Leckliter, Mary E.	Columbus
Lee, William Beecher	Seville
Leonard, T. E.	Mt. Sterling
Lewis	Columbus
I	New Cumberland, W. Va.
	Columbus
	Columbus
	Dayton
	Akron
	Zanesville

Name	*Home Address*
Lyman, William Johnston	Knoxville, Tenn.
Lynch, Elizabeth	Greenville
Lynn, Dewalt Schultz	Basil
McBride, Addine	Columbus
McCann, William S.	Cadiz
McCartney, John Vinton	Tyrrell
McClelland, Cory C.	Findlay
McClung, Harvey F.	Columbus
McClure, James J.	Newark
McCoy, May A.	Bainbridge
McCullough, Robert Whitlock	Jeromeville
McFadden, Thomas E.	Columbus
McGlinchay, Chloie D.	Galloway
McGoun, Nelson L.	Kingsville
McGugin, Kate	Ironton
McGuire, Carl D.	Columbus
McLaughlin, James Dennis	Hinton, W. Va.
Mackey, John Wendall	Ashtabula
Maclean, John Norman	Columbus
Macy, Ethel	Union City, Ind.
Makepeace, Mary Virginia	Columbus
Marchant, S. E.	Washington C. H.
Marco, Ernesto F.	Argentine Republic
Marsh, Fred A.	Columbus
Martin, Charles C.	Columbus
Massey, Herbert N.	Columbus
Michel, Christy William	Columbus
Miles, Clara E.	Columbus
Miller, Charles Stanley	Dublin
Miller, Edgar A.	Wagram
Miller, Harry Leonard	Newark
Mills, Glendora	Marysville
Mills, Inez Edna	Columbus
Mitchell, Angie M.	Miamisburg
Montgomery, Robert J.	Columbus
Moody, Encil E.	Cable
Moore, Robert Bruce	Shelby
Mossman, Paul	Columbus
Mougey, Harry Clifford	Columbus
Mount, Carroll H.	Columbus
Mueller, William A.	Cincinnati
Murray, Harry	Baltimore, Md.
Neal, Harry Elwood	Lancaster
Neuenschwander, Lewis	Pandora
Newton, E. Jennie	Dayton
Nichols, Rell Hunt	Hanover
Nixon, Horace O.	Lowellville
Oakes, George Wells	Little Hocking
O'Brien, Lawrence J.	Columbus
Ochs, Martha	Columbus
Ortman, Herschel A.	Phillipsburg
Owen, Robert Dwight	Granville

Name	*Home Address*
Oxley, Charles E.	Bladensburg
Page, Martin Edwin	Chesterland
Painter, William E.	Newark
Pape, L. Robert	Dayton
Partridge, Bert	Columbus
Paxton, John Fred	Groveport
Pearce, Bryden	Cadiz
Pealer, Charlotte Cisney	Jelloway
Pealer, Edith Mae	Jelloway
Pepple, Alice Dill	Columbus
Perkins, Lewis Arthur	Columbus
Phillips, Mabel G.	Fostoria
Piedad, Juan	Philippine Islands
Pinkerman, Jasper	Jelloway
Piper, Kate	Marysville
Plumb, Helen	Columbus
Plumb, Winthrop G.	Columbus
Pohlman, Irwin Henry	New Bremen
Porteus, Robert	West Lafayette
Postle, Ruth Ella, B. A.	Columbus
Potts, Amos P.	Columbus
Potts, Howard B.	Byesville
Poulson, Olive W.	Orient
Powell, Warren T.	Columbus
Price, W. A.	Harleysville, Pa.
Rashid, M. H.	Bengal, B. I.
Reeder, Harold Lester	Columbus
Rees, Thomas Anthony	Pittsburg, Pa.
Reese, Katherine E.	Alexandria
Regal, Arthur E.	Deerfield
Reichard, Grace May	Columbus
Reimers, Esther Amanda	Red Oak, Iowa
Remaley, Frank Hull	McKeesport, Pa.
Renz, Emilie	Columbus
Ressler, Katherine	Canton
Rice, Bertha	Columbus
Richards, Flora Tyler	Columbus
Riddle, Eloise	Columbus
Ridglev, Clarence F.	Chesterhill
Riter, Nicholas John	Ironton
Roa, Manuel A.	Cagayan, P. I.
Robbins, Ed. T.	Niles
Robinson, C. C.	Hilliard
Robinson, Edgar W.	Columbus
Robinson, James Lee	Conesville
Rockey, Noble W.	Columbus
Rogers, Charles Franklin	Columbus
Rolnick, Samuel	Columbus
Ronan, Wilbert Cathmore	Columbus
Ross, A. C.	Plain City
Roth, Max	Mingo Junction
Runyan, Nelle Frances	Columbus

Name	*Home Address*
Savides, Pericles G.	Samsoun, Asia Minor
Scatterday, Adelia	Columbus
Schaefer, Carl A.	Pomeroy
Schenck, Earl O.	Columbus
Schieber, Arthur L.	Bucyrus
Schieser, Leo	Groveport
Schilffarth, Bertha	Columbus
Schmidt, Victor P.	Columbus
Scott, Archie Hammond	Columbus
Sealock, William Elmer	Groveport
Shade, Ernest F.	Bath
Shaffer, Francis H.	Groveport
Shahan, Alfred J.	Columbus
Shanton, Gaylord	Chillicothe
Shaw, Mrs. Mary Viana	Plain City
Shaw, R. B.	Yellow Springs
Sheppard, Leoti V.	Columbus
Shoemaker, L. H.	Massillon
Shrader, James Edmond	Columbus
Siebert, Ruth Murray	Columbus
Simmons, George Edward	East Monroe
Sims, Ray	Columbus
Sin Clair, Clayton F.	Agosta
Singer, Roland P.	Lewisburg
Slaght, Florence Mae	Oberlin
Slyh, Marie Elizabeth	Columbus
Smalley, Fay	Columbus
Smith, Homer	Plain City
Smith, Katharine L.	Columbus
Smith, Leno L.	Plain City
Smith, Lillian	London
Smith, Louis Alexander	New Brighton, Pa.
Smith, Paul	Columbus
Smith, Roy B.	Columbus
Snyder, Floyd L.	Columbus
Sourek, Joseph F.	Copley
Speelman, Jacob S.	Medina
Spiker, Alvin D.	Dennison
Starrett, Amy Blue	Columbus
Steele, Hariel	Los Angeles, Cal.
Stevens, Glendon A.	Mineral City
Stevenson, Claudia	Rochester, Ind.
Stewart, Mabel	Findlay
Stilwell, Viola E.	Columbus
Stimson, Lily C.	Cincinnati
Stine, George	Columbus
Stuckey, Robert B.	Columbus
Svimonoff, Victor C.	Tiflis, Russia
Swaney, Sara C.	Columbus
Taylor, Bess	Columbus
Taylor, Earl D.	McConnelsville
Taylor, John K.	Linden Heights

Name	*Home Address*
Thomas, Clement Eugene	Arcanum
Thomas, Mrs. Nellie Genevra	Arcanum
Thomas, William Archibald	Columbus
Tinsley, Benjamin P.	Covington, Ky.
Toledo, Antonio	Cavite, P. I.
Twiford, Irving	Elwood, Ind.
Upp, Raymond C.	Wauseon
Van Atta, Robert Smith	Columbus
Wagner, Jesse Otto	Bucyrus
Wagner, Roy A.	Troy
Walker, Charles E., Jr.	Hartwell
Wallace, Guy G.	Danville, Ky.
Wallace, James R.	New Straitsville
Walter, Frances C.	Columbus
Ward, Janet C.	Greenspring
Warren, Milton C.	Groveport
Warren, Nelson Thayer	Norwood
Washburn, Marie	Nelsonville
Watkins, Gwendolen M.	Columbus
Webb, Clarence B.	Defiance
Welling, Florence	Columbus
Welling, Frank P.	Worthington
Welliver, J. E., Jr.	Dayton
Wells, Leslie R.	Troy
Wells, William Bert	Columbus
Weyman, Vera L.	Painesville
Whipple, Charles Augustus	Columbus
Wiegand, Ida L.	
Williams, Ben H.	Columbus
Williams, Elizabeth	Columbus
Williams, Job	Columbus
Williamson, Francis Orrin	Lancaster
Willier, Michael L.	Washington, D. C.
Wilson, Cecil Floyd	Roseville
Wilson, R. C.	Fitchburg, Mass.
Winship, Amy D.	Racine, Wis.
Winters, Dale D.	Columbus
Wissman, William F.	Cleveland
Wolf, Estella	Tiffin
Wolff, Dan R.	Mansfield
Wonders, Driscoll	Bellefontaine
Wood, Mrs. R. Bryant	Columbus
Wright, M. L.	Newark
Young, Adelaide B.	North Vernon, Ind.
Zenker, William	Columbus
Zerby, Harry	Cleveland

LAKE LABORATORY

1908

Name	*Home Address*
Blakeslee, Elihu	Medina
Brookover, Mrs. Charles	Akron
Childs, Clarence C.	Fremont
Dachnowski, Alfred, Ph. D.	Columbus
Davies, Clara A., M. Sc.	Newark
Dye, Daniel Sheets, B. Sc.	New Matamoras
Echmann, Emil Clarence	Columbus
Foote, Earl Harrington	Medina
Fultz, Royal Alfred	Portland, Ore.
Griggs, Robert F., A. B.	Columbus
Haskins, Myrtilla M.	Coldwater, Mich.
Herms, Lillie Magly	Columbus
Hine, James Stewart, B. Sc. H. & F.	Columbus
Jackson, Theron S.	Cleveland
Jennings, Otto E., B. S.	Pittsburg, Pa.
Kohnky, Emma	Cincinnati
Lanz, Ida	Cincinnati
Marshall, Fred Rupert	Columbus
McLaughlin, Thomas E.	Columbus
Orcutt, Alfred Shepardson	Granville
Powell, Homer K.	Findlay
Reinheimer, Bartelle	Sandusky
Risser, Edwin A.	Pandora
Scott, Leonard L.	West Liberty
Sherrard, Zella	Fremont
Showalter, Benjamin Roscoe	Oberlin
Sim, Robert James	Jefferson
Smead, Annie E., M. A.	Toledo
Smith, Ethel Marie	Hartegrove
Sullivan, W. E.	Lima
Thompson, Homer C.	Gaithersburg, Md.
Williams, Stephen Riggs, Ph. D.	Oxford

WINTER COURSE IN AGRICULTURE

1909

Name	*Home Address*
Adams, Darwin B.	Zanesfield
Adler, George F.	Arlington
Babcock, Carl J.	Rochester
Baird, Ralph	Lorain
Bates, Charles R.	Wauseon
Beatty, William Gurley	Columbus
Benham, Harold	Lebanon
Berger, Walter E.	Ashville
Bingham, Eldis	Edinburg
Blackburn, Harvey	Seville
Blackwood, Roy S.	Fairview
Blue, Frank C.	Amanda
Born, Charles	Delta
Boyer, James Oreville	Finleyville, Pa.
Brewster, James G.	East Akron
Brim, Lloyd James	Latchie
Brooks, Ferd C.	Carrollton
Brown, Henry A.	Waynesville
Bruning, Paul	Pemberville
Buck, Hal J.	Weston
Burkhart, Clarence Augustus	Ft. Jennings
Carey, Jesse W.	Waynesville
Carpenter, Charles G.	Celina
Cassedy, John J.	Warren
Chamberlain, William	Delaware
Chambers, Roy	Seville
Chaney, Carl Neale	Woodburn, Ky.
Chaney, J. H.	Woodburn, Ky.
Clemmer, Richard H.	Stawnton, Va.
Cleveland, Frank W.	Galena
Clingan, Ernest	Mansfield
Clingan, Judd E.	Mansfield
Clippinger, Dean	Van Wert
Colflesh, Allen	Delaware
Collins, Warren R.	Tremont City
Colwill, Ernest L.	Croton
Colwill, Everett Addison	Croton
Coulter, Charles D.	Oxford
Cowan, Karl S.	Lebanon
Cox, Guy	Ada
Crumley, Glenn	Lancaster
Culey, John E.	Elyria
Custis, Heber Willett	Wilmington
Dike, Clarence Lawson	Solon
Dill, Walter Martin	Fredericktown
Dinsmore, John Walter	Osborn
Dorsey, B. H.	Dresden
Douglass, Earl F.	Camden
Dreisbach, Ardo B.	Findlay

Name	*Home Address*
Dudley, George S.	Oberlin
Edman, Earl F.	Hume
Edwards, Elias	Hebron
Ellett, Curtis A.	Beloit
Engle, William P.	Lowell
Ewing, Edwin L.	Bellefontaine
Fish, Ernest	Richwood
Gano, Daniel	Madisonville
Garster, John Wesley	McClure
George, Maurice	Venedocia
George, Robert J.	Lisbon
Glick, Philip Stanley	Circleville
Good, John W.	Dalton
Gracy, Thomas E.	Fairview
Grover, Nelson A.	Berlin Heights
Guthery, Lowell Hord	Marion
Hach, Walter Fredrick	Willoughby
Hansberger, R. D.	Columbus
Harrod, Earl Pierre	Harrod
Hartsock, Edward A.	Spring Valley
Hiner, John	West Salem
Hood, Kent Williams	Richmond, Va.
Hopkins, J. P.	Belpre
Hoverland, O. C.	East Sparta
Huber, Reese H.	Bluffton
Huchison, Warren	Washington C. H.
Huddle, Victor T.	West Jefferson
Hyslop, W. Earl	Springfield
Jacobs, Floyd	Uniopolis
Jeffrey, John G.	Island Creek
Jones, Edward	Delphos
Jones, E. Everett	Salem
Kendall, Isaac	Chalfants
Kennel, Edgar A.	Trenton
Kibler, Myron Charles	Chesterland
Klein, Theodore H.	Minersville
Krebehenne, Albert	Tadmor
Kuhlman, John Williams	Vermilion
Lawrence, Charles A.	Lexington
Lehman, H. Ashford	Troy
Leonard, Oliver Rinaldo	North Pomfret, Vt.
Lewis, A. B.	Jamestown
Livingston, Ralph	Columbus
Lugibill, Alvin C.	Pandora
Lutton, Clarence	Delta
McClain, Howard R.	Lima
McClelland, Mason Rutherford	Creswell
McMurray, Homer Clayton	Barnesville
McNees, John Fred	Berkey
Mahan, Wallace C.	Rosewood
Marshall, John Chauncey	Antwerp
Meade, Wilbur	Medina

Name	*Home Address*
Melber, William	Warrensville
Meng, Louis	Genoa
Miller, Arthur E.	Waterville
Miller, Arthur Stanley	Thurston
Miller, Henry	Marble Cluff
Miller, Vernon W.	Brice
Miller, William	Lebanon
Moore, Watt	Frazeysburg
Morgan, Fred Lyle	St. Clairsville
Moser, Fred W.	Upper Sandusky
Musser, Ward	Marshallville
Naser, Charles E.	Washington, Pa.
Nelson, Martin C.	Napoleon
Nethers, Brice	Trinway
Norris, William H.	New Richmond
Nuding, Grover S.	Mendon
Nutt, Edwin W.	Spring Valley
Nutt, Wilbur	Spring Valley
Oakes, F. J.	Canton
Oglesbee, W. J.	Jamestown
Overpeck, James C.	Hamilton
Parker, Howard	Alexandria
Pax, Jacob	Celina
Pennington, Theodore	McCutchenville
Petry, Walter A.	West Manchester
Plum, A. Ray	Amanda
Poole, Ira Garfield	Upper Sandusky
Potts, Raymond F.	Columbus
Quayle, Ivan	Rock Creek
Rea, George A.	Bainbridge
Rice, Harry	Johnstown
Richards, R. Clark	Clyde
Richards, Russell N.	New Paris
Rupprecht, Frank Martin	Marysville
Ryder, Claude	Dayton
Schieber, Irven W.	Bucyrus
Schumacher, Gideon	Pandora
Schweitzer, J. J.	Guernsey
Scott, Theodore Paul	Tallmadge
Sellers, Charles R.	Lebanon
Settlage, Theodore	St. Mary's
Sheldon, F. E.	Grafton
Simmers, Christian Elmer	Gnadenhutten
Sink, Victor H.	Wharton
Smith, C. W.	Burbank
Smithson, Roy Wilshire	Hillsboro
Sollenberger, O. C.	Tippecanoe City
Sperry, Rex W.	Utica
Steel, J. Robert	Chillicothe
Steiner, Lenus	Pandora
Stormont, Charles Hubert	Cedarville
Storrow, Kent H.	Brighton

Stotts, Harold L.....Boughtonville
Swartz, Earl .....Jerry City
Swartz, Mearl .....Jerry City
Swigert, Clark K.....Bloomville
Taylor, Edward T.....Urbana
Taylor, Lester La Royal.....Willoughby
Turner, Bert .....Cedarville
Turpie, James Henry.....Columbus
Vallery, Lloyd .....Waverly
Van Houten, John Dayton.....Cincinnati
Voorhies, Leon M.....Old Fort
Wagner, Thomas Glen.....Bucyrus
Wales, Horatio Watson.....Massillon
Weaver, Daniel G.....Lewisburg
Wedgewood, Clarence .....Mulberry
White, Gill .....Richwood
White, Harry .....Richwood
Williamson, Fred W.....Xenia
Willson, Clarence .....Delta
Wilson, James L.....New Lexington
Wolf, Raymond .....Xenia
Wolfe, Rolland J.....Trimble
Woodruff, Lewis .....Sheffield
Worley, J. Van.....Morrow
Ziegler, George M.....Fayette
Zimmerman, Walter .....Galion
Zutavern, R. H.....Bloomville

WINTER COURSE IN DAIRYING

1909

Name	*Home Address*
Arthur, Charles	Cuyahoga Falls
Ball, H. M.	Mt. Vernon
Cook, Omar A.	Calla
Cooley, Kenton P.	Georgesville
Coulter, F. G.	———
Cox, Emery	Lewistown
Crane, Eugene B.	Sharon Center
Fairchild, Dean D.	Painesville
Ford, B. G.	Bellaire
Foster, J. I.	Thornville
Fox, T. A.	———
Gove, Thurman H.	Mechanicsburg
Hart, C. W.	———
Jones, G. E.	———
Kirkendall, I. F.	Killbuck
McCandlish, Clarence	———
Mills, Joel Bertram	Marysville
Mowls, L. H.	Waynesburg
Nimon, Marion A.	Osnaburg
Parker, Park Leonard	Findlay

Name	*Home Address*
Ross, Clayton B.	Blanchester
Russell, Hiram James	Benton
Saunders, G. L.	———
Schmidt, Peter	———
Sheldon, Fred E.	Grafton
Smith, Albert H.	Brunswick
Smith, Walter	Jackson Center
Surface, L. L.	———
Van Dyke, H. A.	———
Walker, Albert O.	———
Young, S. A.	———

SATURDAY COURSES IN COLLEGE OF EDUCATION

Name	*Home Address*
Brown, Myra L.	Columbus
Fischer, Carrie	Columbus
Fullerton, Charles Hayward	Columbus
Gatrel, Ida	Circleville
Lehman, Hannah	Columbus
Sark, S. M.	Derby

GENERAL SUMMARY

College of Agriculture and Domestic Science—		
Graduate Students	9	
Undergraduates (Agriculture—degree courses)	193	
Undergraduates (Domestic Science—degree courses)	115	
Undergraduates (certificate courses)	72	
		389
College of Arts, Philosophy, and Science—		
Graduate Students	55	
Undergraduates	714	
		769
College of Education—		
Graduate Students	7	
Undergraduates	39	
		46
College of Engineering—		
Graduates	5	
Undergraduates (degree courses)	892	
Undergraduates (certificate courses)	43	
		940
College of Law		132
College of Pharmacy		80
College of Veterinary Medicine—		
Graduate Students	1	
Undergraduates	192	
		193
Total		2549
Names counted twice		13
Net total		2536
Summer Term, 1908	453	
Summer Civil Engineering, 1908	18	
Summer Lake Laboratory, 1908	32	
		503
Winter Course in Dairying, 1909	31	
Winter Course in Agriculture, 1909	180	
Winter Course for Homemakers, 1909	39	
Saturday Courses in Education	6	
		256
Total		3295
Names counted twice		245
Grand net total		3050

SUMMARY BY STATES AND COUNTRIES

Argentine Republic	8	Nebraska	1
Arkansas	4	Nevada	1
California	2	New Hampshire	2
China	2	New Jersey	3
Colorado	3	New Mexico	2
Connecticut	2	New York	31
Cuba	5	North Dakota	1
District of Columbia	2	Nova Scotia	1
Georgia	3	Ohio	2297
Illinois	7	Oklahoma	1
India	8	Pennsylvania	27
Indiana	17	Peru	2
Iowa	6	Philippine Islands	5
Japan	2	Poland	1
Kansas	4	Porto Rico	3
Kentucky	7	Russia	2
Louisiana	1	South Carolina	1
Maine	1	Tennessee	2
Malay Peninsula	1	Texas	6
Maryland	3	Turkey	3
Massachusetts	4	Vermont	2
Mexico	4	Virginia	5
Michigan	14	Washington	1
Minnesota	3	West Indies	1
Mississippi	4	West Virginia	16
Missouri	1	Wisconsin	6
Montana	1		

SUMMARY BY COUNTIES

Adams	3	Hamilton	51	Noble	4
Allen	14	Hancock	16	Ottawa	4
Ashland	6	Hardin	8	Paulding	4
Ashtabula	23	Harrison	12	Perry	21
Athens	15	Henry	2	Pickaway	32
Auglaize	34	Highland	13	Pike	7
Belmont	33	Hocking	4	Portage	11
Brown	9	Holmes	5	Preble	24
Butler	30	Huron	15	Putnam	15
Carroll	3	Jackson	9	Richland	34
Champaign	27	Jefferson	17	Ross	24
Clark	22	Knox	15	Sandusky	15
Clermont	12	Lake	13	Scioto	12
Clinton	14	Lawrence	10	Seneca	13
Columbiana	26	Licking	45	Shelby	13
Coshocton	14	Logan	18	Stark	29
Crawford	16	Lorain	14	Summit	26
Cuyahoga	44	Lucas	23	Trumbull	4
Darke	21	Madison	29	Tuscarawas	28
Defiance	4	Mahoning	14	Union	19
Delaware	19	Marion	14	Van Wert	10
Erie	15	Medina	6	Vinton	2
Fairfield	41	Meigs	6	Warren	7
Fayette	16	Mercer	6	Washington	10
Franklin	861	Miami	25	Wayne	17
Fulton	9	Monroe	3	Williams	8
Gallia	6	Montgomery	85	Wood	5
Geauga	2	Morgan	9	Wyandott	12
Greene	25	Morrow	12		
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The State has no material resources at all comparable with its citizens, and no hope of perpetuity except in the intelligence and integrity of its people.